

Motivational analysis during one season in female football in Castilla y León (Spain)

Análisis motivacional durante una temporada de fútbol femenino en Castilla y León (España)

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Abstract. Despite the importance of football in today's society, little research has been done on female football. The principal aim of this investigation is to find out why women participate in this sport, to identify goal orientations, as well as to analyse the perceived motivational climate and differences according to category and stage of the season in women's football. In order to achieve this, we have used a sample of 41 female football players belonging to three different football clubs of Castilla y León in three different ranks (1st Regional B Football 11, 1st Regional Futsal, and 2nd National Football 11), aged between 15 and 19 years old, which were administered the *Sport Motivation Scale* by Pelletier et al. (1995), the *Task and Ego Orientation in Sport Questionnaire* by Duda and Nicholls (1989) and the *Perceived Motivational Climate in Sport Questionnaire-2* by Newton et al. (2000). Results reveal that the subjects present more Intrinsic than Extrinsic Motivation and obtained low rating values in Amotivation. Referring to the goal orientation matter, evidence confirms that the levels of Task Orientation are higher than to Ego in every rank, with the latter decreasing throughout the season. In every team, the subjects perceived a greater Task-involving climate than to Ego-involving, although higher values in the Ego-involving climate were achieved in the 2nd National Football 11 compared to the other ranks.

Keywords: Female football, motivation, goal orientation, self-determination.

Resumen. Pese a la importancia del fútbol en la sociedad actual hay pocos estudios que se centren en el fútbol femenino. El objetivo de este trabajo es conocer las razones de participación en el deporte, identificar las orientaciones de meta, así como analizar el clima motivacional percibido y las diferencias existentes en función de la categoría y la etapa de la temporada en el fútbol femenino. Para ello, se empleó una muestra de 41 futbolistas femeninas pertenecientes a tres clubes de fútbol de Castilla y León de tres categorías distintas (1^a Regional B Fútbol 11, 1^a Regional Fútbol Sala, y 2^a Nacional Fútbol 11), con edades comprendidas entre 15 y 29 años, a las cuales se les administraron la *Escala de Motivación Deportiva* de Pelletier et al. (1995), el *Cuestionario de Orientación a la Tarea y al Ego* de Duda y Nicholls (1989) y el *Cuestionario de Clima Motivacional Percibido en el Deporte* de Newton et al. (2000). Los resultados revelan que las participantes mostraron una mayor Motivación Intrínseca que Extrínseca y obtuvieron unos valores bajos en Amotivación. En relación a las orientaciones de meta, en todas las categorías aparecen valores más elevados en la Orientación a la tarea que al ego, con un descenso de esta última a lo largo de la temporada. En todos los equipos, las participantes percibieron un mayor Clima de implicación hacia la Tarea que al Ego, aunque en la 2^a Nacional Fútbol 11 alcanzaron valores más elevados en Clima de implicación al Ego respecto a las otras dos categorías.

Palabras clave: Fútbol femenino, motivación, orientaciones de meta, autodeterminación.

Introduction

Women's football is currently experiencing a growing trend in the number of licences granted by the Spanish Football Federation (Consejo Superior de Deportes, 2019), as well as in the participation in major European and world events. Football, besides being a spectacle, is a complex sport that requires great technical, tactical and psychological skills (Navarrón, Asenjo & Rodríguez, 2012). Analysing the psychological variables that interact is pivotal for those who practise it, since it

allows to train mentally the athletes to achieve the optimal psychological state that improves their performance. Within these variables, motivation plays a fundamental role in the improvement of all aspects (physical, psychological and social) that involve this sport, and helps to achieve not only greater commitment and adherence to it (Iso-Ahola & St. Clair, 2000), but also better results (Fernández-Ríos, Cecchini & Méndez-Jiménez, 2017).

Motivation in sport has been studied from different perspectives. Deci and Ryan (1985), in their theory of Self-Determination, assume that people tend to psychological growth and development, as long as they find support for their basic psychological needs, which are fundamentally those of autonomy, competence and

relatedness (Deci & Ryan, 2000). The satisfaction of these needs explains the behaviour of individuals along a motivational continuum, which ranges from Amotivation to Intrinsic Motivation, through Extrinsic Motivation. Motivation is intrinsic when sport is practised only for pleasure, so the activity is performed without external reinforcements or rewards. Vallerand, Blais, Brière and Pelletier (1989) suggest that it is a multidimensional construct where three subtypes can be distinguished: firstly, the Intrinsic Motivation to know, which means that sport practice is carried out for pleasure and the feeling that the sportsperson enhances when they learn; secondly, the Intrinsic Motivation to experiment, based on sport practice for enjoyment, but also to sense something else from usual perceptions; and thirdly, the Intrinsic Motivation to achieve results, which attributes sport training to the delight and fulfilment experienced when exercise, movements or new positions are performed correctly). Motivation is extrinsic when sportswomen act upon external reinforcements or rewards: money, grants, trophies, social acknowledgement, etc. (Moreno, Cervelló & González-Cutre, 2007). Within extrinsic motivation, Deci and Ryan (1985) propose a multidimensional perspective with four subtypes that vary according to the degree of autonomy: firstly, the Integrated regulation, which is the most autonomous form and occurs when behavior is not only considered valued, but also congruent with the other goals, objectives and needs of the individual's life; secondly, the Identified regulation, where although sport is trained under external control, the athlete has a higher level of autonomy available and the ability to make decisions in order to achieve this self-dependence (Moreno et al., 2007); thirdly, the Introjected regulation, where sport is practised on a regular basis on an external demand, but with an internal reward that fosters self-esteem and self-accomplishment, but still without autonomy; and finally, the External regulation, in which autonomy is absent, and sport is practised either under somebody else's request, either for future rewards. External regulation and Introjected regulation represent the lowest levels of self-determination, Identified the medium level, and Integrated regulation would represent the highest level of Self-determined behavior influenced by external activity considerations (Deci & Ryan, 1985; Balaguer Castillo & Duda, 2007). Amotivation represents the lack of both types of motivation, consists of non-regulation and a lack of intention to sport practice (Deci & Ryan, 1985; Ryan & Deci, 2020).

On the other hand, to understand motivation in sport it is important to analyse goal orientations in achievement contexts. The Achievement Goal theory (Nicholls, 1984) claims that in achievement settings, such as sports, the main goal of individuals is to demonstrate competence, and there are two different ways of interpreting this competence in terms of personal goal orientation. Nicholls (1984) defines two different goal orientations: Ego Orientation, if the athlete is stimulated by the competition with the others, testing and comparing his capacity levels, both at goal and ability levels; and Task Orientation, if the athlete is encouraged by his mastery and personal progress, examining both their level of ability and self-improvement (Moreno et al., 2007).

The competitive level of the athletes may influence on the strength and type of goal orientations they show. Players of the National Basketball Team consider the willingness to compete and the desire to win as indispensable psychological aspects in the study by Sáenz-López, Jiménez, Giménez and Ibáñez (2007). Likewise, García-Naveira and Remor (2011) find higher scores in success motivation and in competitiveness trait depending on the level of professionalization in football players.

These goal orientations may be influenced by the environment or motivational climate in which they operate, so that both trainer and teammates can generate a climate of ego or task involvement, thus affecting motivation (Newton, Duda & Yin, 2000). Ego-involving climate occurs when the coach is characterized by decisions of unequal recognition (offering more attention and help to the most talented athletes), of punishment for mistakes (responding negatively to them) and of promoting intra-group rivalry (causing social comparison and competitiveness among athletes). On the other hand, task-involving climate happens when the coach is characterised by decisions of effort and improvement recognition (they appreciate hard work, that everyone tries their best), for the recognition of every role (they make possible that each athlete has a key role and contributes to success), and for cooperative learning (they value cooperation and improvement) (Galván, López, Pérez, Tristán & Medina, 2013).

Research shows a positive relationship between task orientation and intrinsic motivation (Álvarez, Castillo, Duda & Balaguer, 2009; Ntoumanis, 2001), which makes sense since task orientation is an adaptative approach to achieving goals, which encourages them to engage in sport.

On the other hand, scientific literature proves the importance of the climate transmitted by the coach as a predictor of the motivation of athletes and their commitment to sport (Torregrosa, Sousa, Viladrich, Villamarín & Cruz, 2008). More precisely, it is tested that a task-oriented climate promotes effort, self-improvement and the rise of their motivation (Almagro, Sáenz-López, González-Cutre & Moreno, 2011; Almagro, Sáenz-López & Moreno, 2012; Ceccini, González, López-Prado & Brustad, 2005), which facilitates a greater conscious commitment to sport. This is especially relevant in young athletes, as Torregrosa et al. (2008) have proved with male football players and Iwasaki and Fry (2016) with female football players.

Since motivation and motivational climate are determining for any sport, it is logical to find a great variety of studies concerning football (Álvarez et al., 2009; Barroso, Lopes & De Marco, 2017; Fernández, Yagüe, Molinero, Márquez & Salguero, 2014; Monteiro, Moutão, Baptista, & Cid, 2014; Sarmiento et al., 2014; Sarmiento, Peralta, Harper, Vaz & Arques, 2018); however, there are few studies that analyse female football hence the value of this research.

Based on the fact that the ultimate goal of any season is the evolution and improvement of every skill – including psychological ones – we considered relevant to keep track of motivation along the season. Our aim in this work, therefore, consists of analysing the motivation of three female football teams of three different categories, i. e. different levels of competition (ascending order: 1st Regional B Football 11, 1st Regional Futsal and 2nd National Football 11), by making a longitudinal study of the motivational climate through a whole season (beginning, middle and end) which allows us to evaluate the possible changes of the psychological variables to be studied. We also intend to observe whether there are differences according to the level of competition in terms of intrinsic motivation, goal orientation and perceived motivational climate, as well as to analyse possible relationships between variables.

Materials and Methods

Participants

The sample consists of 41 female football players from the community of Castilla y León (Spain): 13 players from Juventud Rondilla – UEMC S.C., Valladolid (1st Regional B Football 11), 12 players from San Roque Carbajosa de la Sagrada S.C., Salamanca (1st Regional

Futsal) and 16 players from León Fútbol Femenino S.C., León (2nd National Football 11). All the players participated voluntarily in this study and under express authorisation by signing an informed consent form.

The football players range in age from 15 to 29 years old, (1st Regional B Football 11 M: 21.46, DT: 3.53; 1st Regional Futsal M: 22.92, DT: 4.48; 2nd National Football 11 M: 20, DT: 3.79). The requirement for the participation in the present research was to be able to carry out three questionnaires (one at the beginning, other at the half and the last one at the end of the season). The initial sample consisted of 46 players, five of whom were excluded for not completing any of the three questionnaires, as well as for leaving the team before the end of the season. Thus, the sample remained at 41 players.

Measures

In order to realise this investigation, three different questionnaires were provided:

1st. As a way of knowing why these players practise football, they were provided with the «Sports Motivation Scale» (SMS) by Pelletier, Fortier, Vallerand, Tuson, Briere and Blais (1995), used in the Spanish version by Balaguer, Castillo and Duda (2003; 2007) with Spanish sportsmen. This test consists of 28 questions involving a 7-point Likert-type scale, indicating in the answer if It has nothing to do with me (1-2), It has something to do with me (3, 4, 5) or It complies fully with me (6, 7). Its main purpose is to analyse three different factors: firstly, Intrinsic Motivation, which is further divided into Intrinsic Motivation to Know, Intrinsic Motivation to Experiment and Intrinsic Motivation to Achieve Results. Secondly, Extrinsic Motivation, which splits into Extrinsic Motivation from External Regulation, Extrinsic Motivation from Introjected Regulation and Extrinsic Motivation from Identified Regulation; and thirdly and finally, Amotivation. Previous studies have confirmed adequate internal reliability and factorial validity, the construct validity was supported and factorial validity for this scale (Balaguer et al., 2007, Núñez Alonso et al., 2007). The scale has found reliable internal consistency: *Cronbach's alpha* values varying between .70 and .88, except for the External Regulation ($\alpha = .63$) and Identified Regulation ($\alpha = .61$).

2nd. In order to identify the players' tendency towards ego and task, Duda and Nicholl's Task and Ego Orientation in Sport Questionnaire (TEOSQ) (1989) elaborated in the Spanish version by Balaguer, Castillo and Thomas (1996) and adapted to football (Balaguer et

al., 2003), was provided. This questionnaire comprises 13 items: 6 Ego-oriented and 7 Task-oriented. It should be answered with a 5-point Likert-scale, varying from Strongly disagree to Totally agree, regarding the issues they feel more successful with in football practice. The internal consistency of the scales, analyzed with *Cronbach's alpha*, has given very acceptable values (Task, $\alpha = .82$, and Ego, $\alpha = .88$). Previous studies have confirmed adequate internal reliability and factorial validity for this scale (Balaguer et al., 1996; Ruiz-Juan et al., 2014).

3rd. To assess the perceived motivational climate created by the coach, the participants completed the Spanish version (Balaguer, Mayo, Atienza & Duda, 1997) of the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2) (Newton et al., 2000; Walling, Duda & Chi, 1993). This questionnaire entails 29 items (14 ego-involving and 15 task-involving) and should be answered with a 5-point Likert-scale, which ranges between Strongly disagree and Totally agree, regarding their perception about the climate created by the trainer. Previous studies have confirmed adequate internal reliability and factorial validity for this scale (Balaguer et al., 2003; Newton et al., 2000). The *Cronbach's alpha* was: Task, $\alpha = .92$; and Ego, $\alpha = .84$.

Procedure

The study was conducted during the 2017/2018 season.

Firstly, the clubs and coaches of each team were contacted to explain what the study was about and to request their participation if they were interested. Once the clubs and the coaches had given their approval, a meeting was held with the players of each team was held with the aim of explaining what the study was about, to solve their doubts and to provide them with the informed consent document, which they had to return signed, giving their consent and accepting participation, in accordance with the ethical principles for medical research involving human subjects of the Helsinki Declaration (2018).

The questionnaires were administered by the researchers in person to resolve possible doubts that may arise. The SMS/EMD scale was passed only at the beginning of the season, in September, while the TEOSQ and PCMSQ-2 questionnaires were passed in September at the beginning, then in the middle of the season, during the month of January, and finally in the months of April and May coinciding with the end of each club's season. All the questionnaires were completed on the first

training session; otherwise the results obtained in the competition or the sensations obtained in the training sessions could interfere in the participants' answers.

The classification of the teams in the 2017/2018 competitions were similar: 2nd National Division Football 11 (León F. F., León Olympic) 9th Position out of 14; 1st Regional B Division Futsal (San Roque) 6th position out of 10; and 1st Regional B Division Football 11 (Rondilla Youth) 7th position out of 14.

Data analysis

The design of this study was observational and descriptive of a longitudinal nature. All data were analyzed using IBM SPSS 24. First, exploratory analyses were conducted to establish whether data met parametric assumptions. The *Shapiro-Wilk* test showed that five of the dependent variables were not normally distributed ($p < .05$). Therefore, non-parametric tests were used. Initially, a descriptive analysis of the questionnaires was conducted, followed by an analysis of the differences between categories with the *Kruskal-Wallis* test, and a *post hoc* analysis was carried out using the *Mann-Whitney U*-test. The relationships between the study variables were studied using the *Spearman correlation* coefficient. Finally, the analysis of the evolution of the data through the season within each category was carried out with the *Wilcoxon range* test.

Results

Reasons why players play football

The analysis of the «Sports Motivation Scale» (SMS/EMD) shows that the average score of Intrinsic

Table 1.
Means and standard deviations by variable and category on the SMS/EMD scale; *H* value and level of significance between categories

	Category	<i>M</i>	<i>DT</i>	<i>H</i> (<i>p</i>)
IM to know	1 st Regional B Football 11	4.69	1.39	5.022 (.081)
	1 st Regional Futsal	5.88	.57	
	2 nd National Football 11	5.59	1.09	
IM to experiment	1 st Regional B Football 11	5.73	.47	2.120 (.346)
	1 st Regional Futsal	5.96	.88	
	2 nd National Football 11	5.94	.76	
IM to achieve results	1 st Regional B Football 11	5.25	.97	1.135 (.567)
	1 st Regional Futsal	5.65	.72	
	2 nd National Football 11	5.48	1.04	
Intrinsic Motivation	1 st Regional B Fútbol 11	5.22	.88	2.93 (.231)
	1 st Regional Fútbol Sala	5.83	.63	
	2 nd Nacional Fútbol 11	5.57	.85	
Identified EM	1 st Regional B Football 11	5.00	.81	5.232 (.073)
	1 st Regional Futsal	4.85	1.19	
	2 nd National Football 11	4.27	1.12	
Introjected EM	1 st Regional B Football 11	3.63	1.49	.072 (.965)
	1 st Regional Futsal	3.79	.83	
	2 nd National Football 11	3.66	1.43	
Extrernal ME	1 st Regional B Football 11	2.92	1.07	3.302 (.192)
	1 st Regional Futsal	2.15	.80	
	2 nd National Football 11	2.84	1.44	
Extrinsic Motivation	1 st Regional B Fútbol 11	3.85	.93	1.01 (.603)
	1 st Regional Fútbol Sala	3.60	.63	
	2 nd Nacional Fútbol 11	3.59	.99	
Non-Motivation	1 st Regional B Football 11	1.73	.93	1.336 (.513)
	1 st Regional Futsal	1.54	.59	
	2 nd National Football 11	2.13	1.27	

Motivation, is higher than that of Extrinsic Motivation, and that the lowest average is attributed to the Amotivation variable, as shown in Table 1. Within Intrinsic Motivation, the variable that has the highest average is Intrinsic Motivation to Experiment versus Intrinsic Motivation to Know that has the lowest values. With respect to Extrinsic Motivation, the variable by Identified Regulation has the highest mean and Extrinsic Motivation by External Regulation the lowest mean.

The *Kruskal-Wallis* test conducted to study any possible difference by category does not show significant results in any variable, showing a fairly similar motivational profile for all players in our study regardless of category (Table 1).

Players' goal orientations

Once the data acquired through the «Questionnaire of Ego and Task Orientation in Sport» (TEOSQ) has been collected, by carrying out the analysis we can see in Table 2 that during the whole season the averages of Task Orientation are much higher than those of Ego Orientation.

The *Kruskal-Wallis* test does not show any significant difference between the categories, both in Ego and Task Orientation, showing similarity between the groups throughout the season (Table 3).

Table 2.
Means and standard deviations by variable and category in the TEOSQ and PMCSQ-2 questionnaires

Season	Category	Task Or. M (DT)	Ego Or. M (DT)	Task Climate M (DT)	Ego Climate M (DT)
Beginning	1 st Regional B F. 11	4.33 (.52)	1.97 (.94)	4.25 (.57)	2.04 (.25)
	1st Regional Futsal	4.57 (.33)	1.92 (.79)	4.52 (.32)	2.17 (.33)
	2 nd National F. 11	4.46 (.51)	2.07 (.02)	3.74 (.98)	3.09 (.83)
	TOTAL	4.46 (.45)	1.99 (.92)	4.17 (.62)	2.43 (.47)
Half	1 st Regional B F. 11	4.26 (.35)	1.71 (.69)	4.42 (.31)	1.85 (.30)
	1st Regional Futsal	4.45 (.45)	2.08 (.76)	4.20 (.46)	2.30 (.54)
	2 nd National F. 11	4.26 (.55)	2.05 (.89)	3.37 (.98)	2.89 (.80)
	TOTAL	4.33 (.45)	1.95 (.78)	3.99 (.59)	2.34 (.55)
End	1 st Regional B F. 11	4.40 (.47)	1.82 (.81)	4.44 (.30)	1.96 (.31)
	1 st Regional Futsal	4.54 (.48)	1.98 (.60)	4.14 (.50)	2.50 (.50)
	2 nd National F. 11	4.16 (.57)	1.98 (.80)	3.36 (.77)	2.66 (.44)
	TOTAL	4.36 (.51)	1.93 (.74)	3.98 (.52)	2.37 (.44)

Goal orientations per category and season

When comparing the results obtained throughout the three moments of the season in Ego and Task Orientation, the *Wilcoxon* range tests do not show significant results in the 1st Regional Futsal and 1st Regional B Football categories. However, in the 2nd National Football 11 category, although there are no differences in Ego Orientation either, the analysis of

Task Orientation shows differences between the beginning and the end of the season ($Z: -2.619; p: .009$), decreasing as the season progresses.

Motivational climate of involvement in the Ego or Task perceived by the players

The analysis of the data from the «Questionnaire on Motivational Climate Perceived in Sport» (PMCSQ-2) shows that, during the whole season, the averages of the perception Task-involving climate are clearly higher than those of the Ego-involving climate (Table 2).

The *Kruskal-Wallis* test conducted to study any possible difference by category shows significant differences between the groups in the three stages of the season, regarding the Ego-involving climate (Table 3). The *post hoc* analysis by means of the *Mann-Whitney U-test*, indicates that these differences are due, fundamentally, to the higher scores of the 2nd National Football 11 category in relation to the other two at both the Beginning and the Middle of the season, but also to the lower scores of the 1st Regional Football 11 category at the Middle and End of the season (Table 2).

Also with regard to the perception of a Task-involving climate, significant differences can be seen between the categories throughout the season (Table 3). The *post hoc* analysis by means of the *Mann-Whitney U-test*, allows us to observe that the differences are due to the scores of the 2nd National Football 11 category being clearly lower than in the rest (Table 2).

3.1. Perceived climate by category and season

When comparing the results obtained throughout the three moments of the season in the perceptions of the Ego-Task-involving climates, the *Wilcoxon* range tests show significant results in the 1st Regional Futsal category, where a significant increase in the perception of the Ego-involving climate is observed, progressive from the Beginning to the End of the season (Beginning-Middle $Z: -2.339 p: .016$; Beginning-End $Z: -2.478, p: .013$). Inversely, in the same category, the perception of an Ego-involving climate increases throughout the season (Beginning-End $Z: -2.002, p: .045$). However, in 1st Regional Football 11 category, the perception of the Climate to the Ego decreases significantly at the middle of the season ($Z: -2.174, p: .030$), rising again at the End of the season.

Relationships between variables

The correlation analysis between variables (Table 4) shows us that the three Intrinsic Motivation subscales correlate negatively with Ego Orientation and positively

Table 3.
Significant differences between categories and time of season in the variables Task and Ego Orientation, and Task and Ego-involving Climates.

Season	Task-O. H (P)	Ego-O. H (P)	Task Climate H (P)	Ego Climate H (P)
Beginning	1.224 (.542)	.041 (.979)	5.703 (.058)	17.919 (.000**)
Half	1.318 (.517)	1.723 (.422)	10.441 (.005**)	15.425 (.000**)
End	3.595 (.166)	.950 (.622)	15.794 (.000**)	14.002 (.001**)

** differences are significant at level (.01)

* differences are significant at level (.05)

with Task Orientation. However, the Extrinsic Motivation subscales barely present significant correlations, except for the identified regulation, which correlates negatively with Ego Orientation and positively with Task Orientation. With respect to Motivational Climate, Amotivation and Ego Orientation are positively correlated with Ego-involving climate, and Extrinsic Motivation by Regulation is negatively correlated with it. On the other hand, with Task-involving climate, Intrinsic Motivation to experiment and to achieve results shows positive relations, and with Extrinsic Motivation by identified regulation: On the other hand, Amotivation shows negative correlations with Task Orientation and Task-involving climate, and positive correlations with Ego Orientation and Ego-involving climate quite pronounced.

Table 4.
Means, standard deviations, Cronbach alpha coefficients and correlations by Spearman's coefficient between variables measured in the questionnaires

Variables	M	DT	α	2	3	4	5	6	7	8	9	10	11
1 IM to know	5.39	1.17	.88	.65**	.82**	.44**	.32*	.03	-.30	-.34*	.68**	-.07	.28
2 IM to experiment	5.88	.71	.70	1	.71**	.59**	.19	-.11	-.33*	-.51**	.48**	-.11	.32*
3 IM to achieve results	5.46	.93	.76		1	.53**	.19	-.02	-.32*	-.42**	.72**	-.19	.36*
4 EM identified R	4.67	1.08	.61			1	.21	-.03	-.13	-.34*	.45**	-.32*	.34*
5 EM introjected R	3.69	1.28	.74				1	.68**	.36	.25	.19	.11	-.22
6 EM external R	2.66	1.19	.63					1	.43**	.67	-.09	.25	-.26
7 Non-Motivation	1.83	1.01	.74						1	.42**	-.39*	.51**	-.55**
8 Ego	1.99	.91	.88							1	-.16	.41**	-.48**
9 Task	4.45	.46	.82								1	-.09	.28
10 Climate-Ego	2.49	.74	.84									1	-.62**
11 Climate-Task	4.13	.77	.92										1

**Correlation is significant at level .01 (bilateral).

*Correlation is significant at level .05 (bilateral)

Discussion

The aim of this research was to study intrinsic and extrinsic motivation in three different female football teams, to analyse the evolution over the season of their goal orientations and their perceived motivational climate, as well as to find any possible difference between the competitive categories.

Beginning with the type of motivation, it was possible to verify through the Scale of Sporting Motivation that our players have an intrinsic motivation much higher than the extrinsic one, which means that they practise the sport just for the pleasure and the satisfaction that it produces. These results are proved by other papers that show a higher intrinsic motivation both in female football (Granero, et al., 2015; Lizarazo, et al., 2018) and in male football (Bravo, et al., 2014; Moreno et al., 2007). Particularly, it has been proved that the intrinsic motivation to experiment is higher than the intrinsic motivation to achieve results, which means that our players practice their sport for the pleasure and satisfaction of perceiving different sensations from the usual ones, more than for the satisfaction experienced in correctly executing some exercise. The same results

appear in Spanish football players of the 1st Female Division (Granero et al., 2015) and in professional Colombian women footballers (Lizarazo et al., 2018), as in the study by Moreno et al. 2007) with female and male athletes of different sports. Among the extrinsic motivation, the motivation by regulation identified predominates, which represents that our players, in some aspects practice their sport by external causes, although they have a greater autonomy and capacity to make decisions to get there, without the external cause to acquire some kind of reward. Granero et al. (2015) and Lizarazo et al. (2018) obtain the same results with their players, although with higher scores in all three variables.

Finally, the Amotivation is the variable with the lowest means, which is logical, given that our players always practice their sport under some motivation, as occurs in other studies (Bravo et al., 2015; Fernández et al., 2014; Lizarazo et al., 2018), as well as in other modalities (Moreno et al., 2007).

On the other hand, when comparing the results of this scale by categories, there are no differences found, showing a quite similar profile with a high intrinsic component. Neither Sarmento et al. (2018), found differences in the self-determined motivation among the Portuguese male football categories, showing also a high intrinsic component.

Concerning goal orientations, we could see that throughout the season our players are clearly more task-oriented than ego-oriented, focusing their motivation on their level of performance, their ability to overcome and on their own dominance, and not on the comparison and competitiveness with the rest. The Portuguese footballers in the study by Sarmento et al. (2018) also showed a clear inclination to task without differences between the categories. These results are corroborated not only by other work of professional Spanish football players (Granero et al., 2015), but also in young male football players (Fernandez et al., 2014), and in professional female athletes in various sports (Fernandez-Rio et al., 2017). Moreno et al. (2007) observed higher homework orientation scores for young female athletes than for boys in various sports. However, Lochbaum, Cetinkalp, Graham, Wright & Zazo (2016), in a quantitative review of goal orientations from 1989 to 2016, conclude that there are no differences in goal orientations between genders or between categories of various sports.

When analysing the evolution of goal orientations throughout the season, we found that both ego and task

orientation remain stable in the 1st Regional B Football 11 and 1st Regional Futsal categories, maintaining a high motivation for personal progress throughout the season, while a low motivation for competitiveness with teammates. Nevertheless, in the category 2nd National football 11, the orientation to the task diminishes as it advances the season, which might be due to the slight fatigue both physical and psychological that can be accumulated in the course of the season, manifesting itself at the end of the same one. Fernández-Río et al. (2017) compared the goal orientation of female athletes before and after two different sports contexts, training and competition, showing no differences between the different situations in their goal orientation, but we have not found any work that analyses the evolution of goal orientation throughout the season, so that we could compare with our results.

In relation to the motivational climate perceived by our players we have observed that, throughout the season, there is a clear sense of involvement in the task, meaning that they perceive a climate focused on cooperative learning, recognition of improvements and efforts, and not a climate oriented towards competition, unequal treatment and rivalry between players. Iwasaki and Fry (2017) also find in teenage female football players, Ródenas (2019) in university football players and Fernández-Río et al. (2017), in female athletes of various sports, a climate clearly involved in the task. There are even studies that show that women have higher scores in the perception of the climate of involvement in the field of sports (Moreno et al., 2007; Chacón Cuberos et al., 2018).

When comparing the perceived climates of the different categories a greater climate of involvement towards the competition is perceived in the 2nd National Football 11 category than in the rest of the categories, although it decreases as the season progresses. However, the climate of involvement in learning continues to predominate in the National category but is lower than in the rest of the categories at different times of the season. The opposite also occurs in the team of 1st Regional Futsal, which significantly decreases its perception of the climate of involvement in the task at the end of the season, while the climate ego-involving increases. Seeing these results, we cannot reach clear conclusions about how the moment of the sports season affects the goal orientations and the perception of the climate; neither can we say that the differences between the teams are due to the different category they belong to, which may be due to their successes or failures in the

competitions during the season or other variables, such as the influence that the coaches have when it comes to promoting a climate in the team (Álvarez et al., 2009). In this sense, Torregrosa et al. (2008) point out the relevance of the figure of the coach when it comes to developing a climate focused on effort and personal improvement, given the close relationship that exists between the climate involved in the task and sporting commitment, as has also been demonstrated by various authors (Almagro et al., 2011; Álvarez, et al., 2009; Iwasaki & Fry, 2016; Moreno et al., 2007; Torregrosa et al., 2008); being especially relevant in the youngest athletes where the coach is considered an important model to follow (Alesi, Gómez-López, Monteiro & Granero, 2019). In addition, Monteiro et al. (2018), have shown in Portuguese football players that their autonomy is encouraged when the coach creates a motivational climate involved in the task, which can indirectly improve the results of the team. Furthermore, the perception of a climate involved in the task has been related to a greater acceptance of peers, and plenty more entertainment (Smith, et al., 2006), as well as a lower level of state anxiety (Castro-Sánchez, Zurita-Ortega, Chacón-Cuberos & Lozano-Sánchez, 2019) and a greater conscious commitment to sport, specially, in the latter case, in women's football (Iwasaki & Fry, 2016).

Concerning the possible relationships between the variables of the study, information from our players shows a positive relationship between self-determined motivation and task orientation and task climate. These same results can be found in several works with athletes (Granero et al., 2015; Monteiro et al., 2014; Sarmiento et al., 2014), showing the adaptive role of having a high task orientation in promoting self-determination in sports (Ntoumanis, 2000) and the perception of a better motivational climate. A positive relationship has also been found between Amotivation and the orientation and climate of ego involvement, as well as negative relationships with orientation and task climate, as might be expected, given the meaning of Amotivation. However, we have not found the relationship between ME and the orientation and climate towards the ego that appears in other works (Sarmiento et al., 2014; Granero et al., 2015). Nevertheless, we have to emphasize the importance of the coach in promoting a self-determined motivation in his players, generating a climate oriented to the personal effort and the interest in the sport practice.

This research has enabled us to gain a better understanding of the women's football motivation,

underlining the importance of generating effort-involving climates as a means of ensuring greater intrinsic motivation throughout the season. However, it has a number of limitations that should be highlighted: firstly, the sample is very small and compares categories of football and futsal, whose playing conditions are not exactly the same. It would also have been interesting to have information about the results of the games of each team in that season due to its possible influence on the motivational climate of the players. On the other hand, although the questionnaire EDM (SMS) has been used to measure self-determined motivation in multiple studies (f. e., Alesi et al, 2019; Urueña, Chinchilla & Castillo, 2020), nevertheless does not measure extrinsic motivation by integrated regulation, as contemplated by Deci and Ryan's theory (1985), therefore leaving the measure incomplet.

It would be interesting in the future to continue studying motivation with larger samples that would allow for a greater generalisation of results, as well as to compare between men's and women's football, and to take into account other variables that may be influencing motivation during the season.

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