

Psychological characteristics of sports performance in football referees from the Valencian Community (Spain)

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ABSTRACT

The aim of this study was to analyze the psychological characteristics associated with performance in football referees. A total of 124 regional-level referees (aged 17–58 years) participated. The CPRD was administered and, through exploratory factor analysis, four factors were identified. The results showed moderate-to-high levels across the evaluated variables. Experience was associated with visualization and planning, while self-confidence and emotional regulation emerged as the central factor. Overall, these findings confirm the relevance of psychological competencies in refereeing performance.

KEYWORDS: refereeing; football; psychological characteristics.

INTRODUCTION

Psychological work in sports agents has increased in recent years, both in sport in general (Peris-Delcampo & Balagué, 2023) and in football (García-Naveira, 2018). In parallel, psychological intervention in referees has also grown and specialised (Teques, 2025), due to the high competitive demands they face, especially in football (Urra-Tobar et al., 2018).

In Spain, research on refereeing in football has increased, including empirical studies (Castillo-Rodríguez et al., 2021; Durán-Andrada et al., 2025; Estrada et al., 2022), specific instruments (Buceta et al., 2010; Campos-Salinas et al., 2019; Gimeno et al., 1998), as well as specialized chapters and manuals (Almeida et al., 2022; Arbinaga et al., 2023; Arbinaga et al., 2025; del Pino, 2010; Guillén, 2003; Tobías, 2010). In this context, the Questionnaire of Psychological Characteristics Related to Sports Performance (CPRD) (Gimeno et al., 2001), based on Mahoney's PSIS (Mahoney et al., 1987; Mahoney, 1989), is one of the most used instruments. The PSIS evaluates

six dimensions, while the CPRD includes five, maintaining this structure in its adaptation for soccer referees (Buceta et al., 2010).

The aim of this study was to identify the psychological characteristics of a sample of federated, regional-level soccer referees from the province of Valencia in the Valencian Community (Spain), using the CPRD in its version for soccer referees, in order to determine the needs for psychological intervention in this group as a future proposal.

METHOD

Participants

One hundred and twenty-four registered regional football referees from the Valencian Community (Spain) participated in the study. Their ages ranged from 17 to 58 years ($M = 25.36$; $SD = 7.45$), and the majority were male

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(92.74%). Experience ranged from 1 to 30 years ($M = 6.67$; $SD = 5.13$). Purposive sampling was used, and all participants provided informed consent, including parental authorisation for minors.

Instruments

The CPRD (Gimeno et al., 2001), in its referee version (Buceta et al., 2010), was used. This instrument assesses five dimensions ($\alpha = .85$). For the purposes of this research, an exploratory factor analysis revealed a four-factor structure with adequate internal consistency ($\omega = .772-.880$): anxiety and psychological vulnerability, distractibility and sensitivity to external evaluation, self-confidence and emotional regulation, and visualisation and planning. Sociodemographic data such as age, sex, and years of experience were also collected. Exploratory factor analysis (EFA) was used due to its exploratory nature, allowing for the analysis of the factor structure without imposing a pre-existing model. Confirmatory factor analysis (CFA) was not applied due to the sample size, as it could affect the stability of the estimates (Myers et al., 2011).

Procedure

Coordination was established with the Technical Committee of Referees, which approved the questionnaire and facilitated its digital distribution to referees in the first and second regional divisions. The questionnaire was administered using LimeSurvey, with informed consent and in accordance with the ethical guidelines of the University of Valencia and the Declaration of Helsinki (Tyebkhan, 2003).

Data analysis

The analysis was performed using JASP software version 0.18.3.0 and R software for calculating corrected p -values. First, descriptive statistics (mean, standard deviation, skewness, and kurtosis) were calculated to assess univariate normality, and the Shapiro-Wilk test was performed. A p -value less than .05 was considered non-normal.

Spearman's correlations were used to analyse the relationships among CPRD dimensions, age, and years of experience. Holm's correction was applied to control for Type I error in multiple correlations, due to its greater power compared to Bonferroni (Aickin & Gensler, 1996). However, the interpretation focused on effect size (Wasserstein et al., 2019), following Cohen's criteria (Cohen, 1988): .10 (small), .30 (moderate), and .50 (large).

RESULTS

Table 1 shows that self-confidence and emotional regulation had the highest mean ($M = 28.43$; $SD = 4.88$), while distractibility and sensitivity to external evaluation had the lowest ($M = 15.85$; $SD = 5.96$). Regarding normality, only the visualisation and planning variables showed a normal distribution according to the Shapiro-Wilk test.

Table 2 shows that Age was moderately and negatively correlated with visualisation and planning ($\rho = -.326$); while with the other variables, the correlation was not statistically significant and had small effect sizes.

On the other hand, years of refereeing experience showed a small negative correlation with visualisation and planning

Table 1. Main statistics of the factors found.

	Mean	SE	Skewness	Kurtosis	W	p-value
Anxiety and psychological vulnerability	19.47	.57	0.94	1.16	.91	<.001
Distractibility and sensitivity to external evaluation	15.85	.96	0.44	-0.49	.96	<.001
Self-confidence and emotional regulation	28.43	.88	-1.04	1.40	.93	<.001
Visualisation and planning	22.07	.74	-0.13	-0.35	.99	.58

Table 2. Spearman correlations with Holm correction between the four factors found, age and years of refereeing experience.

Variable	1	2	3	4	5
1. Anxiety and psychological vulnerability	—				
2. Distractibility and sensitivity to external evaluation	.523***	—			
3. Self-confidence and emotional regulation	-.354***	-.245	—		
4. Visualisation and planning	.107	.200	.165	—	
5. Age	.103	-.136	-.011	-.326**	—
6. Years of refereeing experience	.100	-.093	.044	-.264*	.758***

* $p < .05$; ** $p < .01$; *** $p < .001$

($\rho = -.264$); while with the other variables, the correlation was not statistically significant and had small effect sizes.

DISCUSSION

The objective was to determine the psychological characteristics of a sample of regional-level football referees from the province of Valencia (Spain) to inform the design of psychological training for this group.

The results indicate that self-confidence and emotional regulation were the most relevant psychological factors, showing higher levels and inverse correlations with “distractibility and sensitivity to external evaluation” and “anxiety and psychological vulnerability,” highlighting their central role in psychological functioning. Although the literature highlights the relevance of visualisation and planning (Arbinaga et al., 2023; Arbinaga et al., 2025; del Pino, 2010; Tobías, 2010), in this sample, it was considered of secondary importance. An inverse relationship was observed with age and experience, suggesting that more veteran referees rely less on explicit cognitive strategies and more on accumulated experience. Furthermore, no significant relationships were found with anxiety or self-confidence, consistent with Lindsay et al. (2025), who indicate that experience alone does not guarantee greater psychological resilience without specific interventions. These results are consistent with previous studies. Castillo-Rodríguez et al. (2021) highlight the influence of stress management on emotional regulation, especially in later stages of a match. Estrada et al. (2022) demonstrate that higher emotional intelligence is associated with less burnout in referees. Similarly, Soriano et al. (2018) point out that experience is not related to better psychological functioning, emphasising the need for programs that develop psychological skills. Taken together, these findings suggest that improving psychological functioning depends more on skills training than on years of practice. Limitations include the sample size and specificity, focused on referees from the first and second regional divisions of Valencia, as well as the low female representation, which limits the analysis by sex. Furthermore, the four-factor structure derived from the AFE requires validation in other contexts. Along these lines, it is necessary to develop specific instruments for referees, such as the RBOS, validated by Teques (2025), thereby reinforcing the importance of optimising this questionnaire.

Based on the results, it is proposed to prioritise self-confidence and emotional regulation. Promoting a sense of control in refereeing through performance and self-regulation strategies, in coordination with technical staff, is crucial. Furthermore, mental health interventions are necessary, given that referees exhibit higher rates of psychopathological symptoms than the general population (Durán-Andrada et al.,

2025). Therefore, strengthening the psychological resources of this group is key in both research and applied practice.

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David Peris-Delcampo — Conceptualization; Methodology; Investigation; Resources; Data Curation; Writing – Original Draft; Writing – Review & Editing; Supervision; Project administration.

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