

# Coach competence, justice, and authentic leadership: An athlete satisfaction model

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International Journal of Sports Science & Coaching 2023, Vol. 18(2) 361–369 © The Author(s) 2022 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/17479541221122411 journals.sagepub.com/home/spo



#### Abstract

This study analyzed the relationship between athletes' perception of coach competence and their satisfaction, mediated by the influence of authentic leadership and perceived justice in team sports players. A cross-sectional study carried out with 115 (49.6% women and 50.4% men;  $17.96 \pm 2.85$  years old;  $8.18 \pm 4.67$  years of experience), soccer (53.9%), and handball (46.1%) players, all members of performance teams. The player's perception of coach competency, authentic leadership, justice, and satisfaction with the coach was measured. Correlation between variables and comparison throughout gender, sport, and experience were analyzed. Also, a multiple sequential mediation model was tested (coach competence  $\rightarrow$  authentic leadership  $\rightarrow$  coach justice  $\rightarrow$  satisfaction with the coach, 95% CI 10,000 bootstrapping). There was a significant relationship (p < 0.05) between all the variables, differences in the perception of satisfaction with the coach based on sport, and the perception of coach justice related to the years of experience in the sport. The multiple sequential mediation model ( $d_21 = 0.468$ ; p < 0.001; IE = 0.098; CI = 0.020; 0.183), and the total indirect effect (IE = 0.310; CI = 0.138; 0.479) were significant. In conclusion, the results suggest that athletes emphasize that if the coach is competent and promotes justice to achieve the athlete's satisfaction with the coach.

#### **Keywords**

Handball, soccer, team dynamics

## Introduction

Starting from Jowett's recent conception<sup>1</sup> that highlights that training fundamentally involves two people, the coach and the athlete, several authors have considered this relationship the backbone of the training process.<sup>2–4</sup> Likewise, the coach has a fundamental role in the behavior and motivation of athletes,<sup>5–7</sup> making them one of the most relevant figures in the scope of optimal sports team performance.<sup>8–11</sup>

On the other hand, the athletes' perceptions of coach behavior play an important role in several theoretical models of sports training, such as the Mediational Model of Coach–Athlete Interactions,<sup>12</sup> the Multidimensional Model of Leadership,<sup>13</sup> and the Working Model of Coaching Effectiveness,<sup>14</sup> which explain the components of the coach–athlete relationship and their influence on several variables, including sports performance and athlete satisfaction.

Particularly, the competencies acquired by the coaches, and more specifically, the athletes' perception of the coaches' competencies, can positively impact athletes since greater coach satisfaction favors more effective player behavior and greater sports performance.<sup>10,14–16</sup> Thus, the player's perception of

the coach's competence and how the coach teaches, transmits knowledge, and motivates or manages the group through their behavior can be a determining factor in a sports team.<sup>17</sup> Following this line, Myers et al.<sup>9</sup> state that the players must assess the coach's competency since their perceptions represent

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a better evaluation of a coach's abilities. Likewise, the coach's behavior influences athletes' motivation and performance.<sup>14</sup>

Recent studies provide a better understanding of what happens within the internal dynamics of teams, emphasizing group variables such as cooperation, cohesion, group dynamics, number of leaders, team conflict, and transactive memory system, among others.<sup>18–22</sup> Having recognized all the variables involved in the internal dynamics of teams, this study analyses the effect of the athlete's perception of their coach regarding satisfaction with them.

# Coach competency and athletes' satisfaction

The literature shows that coaches' competency positively impacts athlete satisfaction.<sup>23</sup> In this sense, Myers et al.<sup>9</sup> showed that competency to motivate positively predicted athletes' satisfaction with their coaches. Likewise, another study reinforced the previous finding with the coaches' technical competency, another factor positively related to athletes' satisfaction with their coaches.<sup>10</sup>

From a multilevel perspective, coach competence is associated with the athletes' perception of satisfaction with the coach, emphasizing the generation of a motivational environment that satisfies the psychological needs of the athlete.<sup>24</sup> On the other hand, it is important to point out that negative relationships have been found when there are low perceptions of coach competence (seen from the athlete's perspective), with role ambiguity and team conflict perceived by the athletes.<sup>25,26</sup>

# Perceived authentic leadership and justice as mediating variables

Another relevant factor in the coach–athlete relationship focuses on the coaches' decisions and how the athletes perceive these, as have been analyzed in different studies.<sup>27,28</sup> Regarding the perception of coaches' decision-making, leadership and justice are two variables in their interpersonal relationship with their athletes. Leadership in sports can be considered a process in which a subject, mainly the coach, significantly influences a group of individuals (athletes/team) to pursue and achieve a common goal. However, this definition generalizes the leadership mechanism in the coach–athlete relationship, making it necessary to explain the process through proposals that specify the different elements in that relationship; therefore, approaches such as authentic leadership have increased their importance in the literature.

The rise of "authentic leadership",<sup>29</sup> according to Luthans and Avolio,<sup>30</sup> lies in subjects (leaders) who are interested in developing people's competencies and providing autonomy instead of exercising direction and control. Different authors, through a meta-analysis about authentic leadership, analyzed and questioned the possible relationships between transformational leadership (one of the most used leadership theories in the sports field) and authentic leadership, observing a strong relationship between both types of leadership.<sup>31,32</sup> In this sense, Walumbwa et al.<sup>33</sup> proposed that authentic leadership comprises four factors related to (a) selfawareness, (b) internalized moral perspective, (c) relational transparency, and (d) balanced processing.

In the sports environment, there is an antecedent that other leadership styles, such as authentic leadership or transformational leadership,<sup>31</sup> indicate a positive mediation effect between the influence of the coach's perception of competence over the athletes' satisfaction.<sup>11,34</sup> Likewise, strong relationships have been demonstrated between authentic leadership and the coaches' competency and justice perceived by the athletes.<sup>26</sup>

Based on the above, Malloy and Kavussanu,<sup>35</sup> in an intervention designed to increase authentic coach leadership, evidenced athletes' greater enjoyment and prosocial behavior. In this sense, Soto et al.<sup>36</sup> showed that athletes perceived that their coaches were more competent when they developed greater abilities related to authentic leadership. Likewise, Bandura and Kavussanu<sup>37</sup> concluded that authentic leadership perceived by athletes is related to satisfaction, commitment, and enjoyment. They also stated that trust in the coach and perceived autonomy mediated the relationship.

Regarding the perception of justice, Colquitt<sup>38</sup> identified four dimensions: (1) procedural, (2) distributive, (3) interpersonal, and (4) informational, which would later be adapted to the sports context. These dimensions have been revealed as predictors of performance related to coach satisfaction,<sup>39</sup> athletes' commitment and effort,<sup>40</sup> and coach confidence,<sup>41</sup> together with team cohesion and sports performance.<sup>18,42,43</sup>

Considering the impact of team cohesion and social laziness on sports performance, coach justice perceived by the athletes plays an important role in optimizing athletes' team performance.<sup>44,45</sup> A recent study by De Backer et al.<sup>46</sup> showed a positive relationship between the perception of coach support for athletes' autonomy and perceived justice. In the same line, Soto et al.<sup>47</sup> identified that the decline in the perception of justice from coaches negatively affected the athlete's satisfaction with competence. This finding emphasizes the importance coaches' justice perceived by athletes has on satisfaction and possibly their sports performance.

#### This study

Despite this evidence, after a literature review, no study has been published that assesses the athletes' perception of coach competence, authentic leadership, coach justice, and their relationship with athletes' satisfaction with the coach. Therefore, this study analyzed the relationship between athletes' perception of coach competence and satisfaction, mediated by the influence of authentic leadership and perceived justice in team sports players. As secondary objectives, we analyzed the differences in the perception of the coach's competence, authentic leadership, justice, and satisfaction with the coach in team sports players depending on the type of sport, gender, and competitive experience. Based on previous evidence that has analyzed these relationships and their direction between study variables, we proposed the following hypothesis, always considering the players' perception of the coach. A greater perception of coach competence is associated with a greater perception of authentic coach leadership and a greater perceived justice, which will ultimately be associated with greater satisfaction with their coach.

# Methods

This was a quantitative cross-sectional study with a correlational-explanatory scope. The participants were selected using intentional non-probabilistic sampling. The sample consisted of soccer (53.9%) and handball (46.1%) players. All were athletes who participated in the highest sports competition according to their age (regional selection team, highest category of university sports) from 10 different teams. The athletes needed to meet the following inclusion criteria to participate in the study: having been trained by the same coach for at least six months; having not been injured in the last three months was an exclusion criterion. A total of 115 athletes (49.6% women and 50.4% men) with 17.96 ( $\pm$  2.85) years of age and 8.18 ( $\pm$ 4.67) years of sports experience participated.

## Instruments

Perceived coaching competency. The Spanish language version of the Athletes' Perceptions of Coaching Competency Scale II-High School Teams (APCCS II-HST),<sup>48</sup> adapted and validated by González-Ponce et al.,<sup>23</sup> was applied. This scale measures the athlete's perception of the coach's competency in enhancing learning and athlete performance. It consists of 15 items preceded by the phrase "how competent is your head coach in his/ her ability to." It is answered with a Likert scale of 5 points (1 = Incompetent; 5 =Complete competence). The questionnaire contains four factors that measure: (a) the coach's ability to motivate (e.g., help players maintain confidence in their abilities to perform well when they are underperforming;  $\alpha = .73$ ); (b) the coach's ability to make decisions and direct (e.g., make appropriate substitutions of players during the competition;  $\alpha = .77$ ); (c) the ability to teach and train player skills (e.g., correct technical-tactical mistakes of players during training;  $\alpha = .74$ ; (d) the ability to positively influence the players' character (e.g., effectively promote good player sportsmanship;  $\alpha = .63$ ). Mean scores are obtained for each of the factors for interpretation. These scores can be interpreted separately or

grouped into a unifactorial mean of perceived coach competence, where the higher score reflects a better perception that athletes have of their coach's competence in supporting their development processes and sports performance.<sup>48</sup> For this study, despite the evidence about a better model fit from the multifactorial structure of the questionnaire,<sup>23</sup> we conducted the analysis for the perceived coach competency throughout the global factor to evaluate the global coach competency perception by the athletes. Furthermore, the physical condition factor was not used because the sample was composed of performance teams that had a physical trainer in their teams.

Perceived authentic leadership. We used the Spanish version of the Perceived Authentic Leadership questionnaire,<sup>49</sup> based on the original version proposed by Walumbwa et al.<sup>33</sup> The instrument measures the subjects' perception of the type of leadership their coaches use. When moving from the workplace to the sports context, four items were eliminated, and four more were changed to adapt them to the context of the athlete. A total of 12 items divided into four factors complement the scale: (a) transparency in relationships (e.g., the coach admits mistakes when they make them;  $\alpha = .71$ ); (b) internalized morality (e.g., the coach shows behaviors consistent with their beliefs;  $\alpha = .78$ ); (c) balanced processing (e.g., the coach solicits points of view other than their opinions;  $\alpha = .82$ ); and (d) Self-awareness (e.g., the coach understands that their decisions can affect players;  $\alpha = .76$ ). The scores for each item ranged from 1 (never) to 7 (always). Each factor can be analyzed or grouped into a mean value of the four, thus obtaining the perception of the coach's authentic leadership.<sup>49</sup>

Perceived justice. The Spanish version adapted to the sports context<sup>16</sup> of the Colquitt<sup>38</sup> and Colquitt and Shaw<sup>50</sup> perceived justice scale developed and tested in the organizational field was used to assess the construct of the coach's justice perceived by the player. The questionnaire is structured in four factors with three items each one that assesses: (a) procedural justice (e.g., the coach is consistent and changes players when they are performing below their level;  $\alpha = .70$ ; (b) distributive justice (e.g., the coach rewards and reinforces the players who work and play the best;  $\alpha = .60$ ); (c) interpersonal justice (e.g., the coach is educated in dealing personally with the players;  $\alpha = .31$ ); and (d) informational justice (e.g., the coach explains and argues tactical decisions;  $\alpha = .66$ ). The instrument is answered using a 7-point Likert scale (1 = never; 7 =always) and averages the scores for each factor and in a global factor; following the recommendations by García-Calvo et al.,<sup>16</sup> in addition to the study's aim the scores for globally perceived justice were used for the main analysis. In the Spanish version adapted to the sports context, Cronbach's alpha values were greater than  $0.70.^{16}$ 

Satisfaction with the coach. The players' perception of satisfaction with their coach was measured with the Spanish version of the Coach Satisfaction Scale,<sup>51</sup> which was originally developed by Myers et al.<sup>10</sup> to evaluate the degree of affinity and liking towards their coach. The original scale consists of four items with a five-point Likert-scale response where 1 corresponds to "very little," and 5 means "a lot"; the players indicate the degree to which the statements correspond to what they think. The mean sum of the items is obtained to interpret satisfaction with the coach. In this study, only three scale items were used, reaching a reliability coefficient of Cronbach's alpha of .74. The items used were: (1) How much do you like playing for your coach; (2) if you were able to play next year, how much would you like to have the same coach again; and (3) how much does your coach know about this sport.

## Procedure

The study was carried out with the approval (ULE-040-2021) of the Ethics Committee of the University of León (Spain). First, the directors and coaches of each team were approached to explain the objective of the research and the characteristics of the questionnaires to be applied. Subsequently, a meeting was held with the players where the study procedure was similarly explained, and their support was requested for participation. Underage athletes were asked for informed consent from their parents or guardians. The subjects answered the battery of questionnaires in a single moment of 10 to 15 minutes. All participants signed written consent to participate in the study. The researchers safeguarded the integrity and respected the anonymity of each participant's answers based on the guidelines and ethical recommendations for the treatment of subjects and the data obtained as stated in the declaration of Helsinki.52

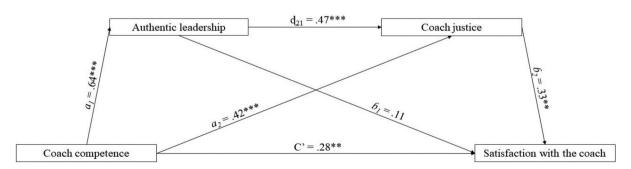
#### Data analysis

Descriptive analyzes of frequencies and measures of central tendency were carried out. The Kolmogorov–Smirnov test determined that data of none of the variables were homogeneity distributed. Reliability was examined for each scale using Cronbach's alpha. A correlation analysis between variables was performed using Spearman's Rho. An analysis of variance was subsequently applied for independent samples based on gender and sport using the Mann–Whitney U test. In contrast, the Kruskal–Wallis test was used to determine differences according to sports experience.

Finally, mediation analyzes were carried out using Process V.3.5 Macro software<sup>53</sup> within SPSS V.25 (IBM Corp., Armonk, NY, USA) to determine through a multiple sequential mediation model (Model 6) if the relationship between the players' perception of their coach's competence and their satisfaction towards the coach is mediated by the variables authentic leadership (M1) and coach justice (M2) perceived by the players (Figure 1). Confidence intervals (95%) were generated using a bootstrap of 10,000 samples to determine the model outcomes. In the same way, the indirect effects of M1 and M2 on satisfaction with the coach and the indirect effect of the perception of competence of their coach M1 and M2 on satisfaction with their coach were calculated within standardized coefficients. We conducted partial correlations between the analyzed variables controlling gender, age, and experience to prove the invariance of the model.

# Results

Table 1 shows the results of the means (M) and standard deviation (SD), skewness, and kurtosis of each evaluated variable, as well as reliability data using Cronbach's alpha ( $\alpha$ ) and the relationships between variables (Spearman's Rho). Partial correlations between the variables by controlling gender, age, experience, and sport show that none of these factors influence the relationship behavior for the correlated variables.



**Figure 1.** Statistical diagram of multiple sequential mediations of perceived authentic leadership and coach justice on the interaction between coach competence and players' perceived coach satisfaction. \*\* p < 0.01; \*\*\* p < 0.001.

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Scale	$M \pm SD$	Skew	Kurt	α	Ι	2	3
I. Perceived coach competence	4.37 <u>+</u> 0.5 l	-0.89	0.50	.89			
2. Perceived authentic leadership	5.76 ± 1.02	-1.24	1.41	.92	.64**		
3. Perceived justice	5.89 <u>+</u> 0.81	-1.15	1.68	.82	.72**	.74**	
4. Satisfaction with the coach	$4.72 \pm 0.50$	-2.91	10.26	.74	.59**	.54**	.61**

Table 1. Descriptive data, reliability coefficient, and relationships between variables.

Note. Skew = skewness; Kurt = kurtosis;  $\alpha$  = Cronbach's alpha coefficient; SD = standard deviation. \*\* p < 0.01.

 Table 2. Intersubject analysis of variance by gender, type of sport, and years of experience.

	Coach competence	Authentic leadership	Perceived Justice	Satisfaction with the coach		
Gender						
Women	4.37 ± 0.5 l	5.65±1.15	$5.90 \pm 0.80$	4.67 ± 0.50		
Men	4.36 ± 0.5 l	5.87 ± 0.87	5.89 ± 0.82	4.78 ± 0.50		
Ζ	-0.01	-0.53	-0.05	-1.85		
Sport						
Soccer	$4.39 \pm 0.47$	5.98±0.75	$6.00 \pm 0.71$	4.83 ± 0.3 l		
Handball	$4.34 \pm 0.55$	5.51 ± 1.22	5.77 ± 0.90	4.59 ± 0.63		
Z	-0.29	-1.58	-1.30	<b>-2.49</b> **		
Experience						
0–2 years	$4.56 \pm 0.36$	5.97 ± 0.95	$6.28 \pm 0.55$	4.81 ± 0.35		
3–5 years	4.25 ± 0.41	5.36±1.32	$5.67 \pm 0.77^{a}$	4.67 ± 0.29		
6–10 years	$4.30 \pm 0.57$	5.61 ± 1.01	5.73 ± 0.87	4.66 ± 0.70		
>    years	$4.42 \pm 0.53$	6.10±0.71	$6.03 \pm 0.80$	4.78 ± 0.38		
x <sup>2</sup>	6.00	7.58	9.76*	6.02		

Note. a = significant differences concerning the 0–2 years group; b = significant differences concerning the 3–5 years group; c = significant differences concerning the 6–10 years group; Z = Mann–Whitney U test Z value;  $x^2$  = Chi-squared from the Kruskal–Wallis test. \* p < 0.05. \*\* p < 0.01.

Table 3. Regression coefficients,	standard error, and summary of the mediating effect model of authentic leadership and perceived					
justice on the relationship between perceived coach competence and coach satisfaction.						

Antecedent	М <sub>1</sub> (Authentic leadership)		M <sub>2</sub> (Coach justice)			Y Satisfaction with the coach			
	Coef.	SE	Þ	Coef.	SE	Þ	Coef.	SE	Þ
X (Coach competence)	0.641	0.145	<0.001	0.421	0.116	<0.001	0.279	0.105	=0.010
M <sub>I</sub> (Authentic leadership)				0.468	0.057	<0.001	0.113	0.053	= 0.302
M <sub>2 (Coach justice)</sub>							0.328	0.074	= 0.007
Constant	0.130	0.637	= 0.837	0.814	0.392	= 0.040	2.000	0.317	<0.001
	$R^2 = 0.411$			$R^2 = 0.649$			$R^2 = 0.427$		
	F (   3) = 79.033, < 0.00			F (2112) = 103.693, < 0.001			F (3111) = 27.656, < 0.001		

Note. Coef. = coefficient; SE = standard error; IE = indirect effect; \* = significant indirect effect (confidence intervals do not include the value zero).

The results referring to the intersubject differences based on gender, sport practiced, and years of competitive experience can be seen in Table 2.

Table 3 and Figure 1 show the results of the multiple sequential mediations on the athlete's perception of his coach, which evaluated the mediating effect of authentic leadership (M1) and perceived coach justice (M2) on the interaction between perceived coach competence (X) and satisfaction with the coach (Y). The direct effect (c') of X

(coach competence) on Y (satisfaction with the coach) and indirect effects through the individual variables M1 (authentic leadership; a1 \* b1) and M2 (coach justice; a1 \* b1) as well as the global influence of the mediators M1 + M2 (authentic leadership + coach justice; a1 \* d21 \* b2) on Y (satisfaction with the coach) were observed. Results revealed that the coach competence variable is positively and significantly related to authentic leadership (a1=0.641; p < 0.001), coach justice (a2=0.421; p <

0.001), and satisfaction with the coach (C' = 0.279; p < 0.05) perceived by the players.

Regarding the indirect effects of the model, the results indicate that the first specific model that measured coach competence  $\rightarrow$  authentic leadership  $\rightarrow$  satisfaction with the coach  $(X \rightarrow M1 \rightarrow Y)$  was not significant (61 = 0.113; p = 0.302; IE = 0.072; CI = -0.076; 0.236),while the second specific model composed by coach competence  $\rightarrow$  coach justice  $\rightarrow$  satisfaction with the coach (X  $\rightarrow$ M2  $\rightarrow$  Y) indicates a significant mediation (62=0.328, p= 0.007, IE = 0.138, CI = 0.027; 0.267). In addition, the specific indirect effect of the third model that calculated the sequential relationship between the variables coach competence  $\rightarrow$  authentic leadership  $\rightarrow$  coach justice  $\rightarrow$  satisfaction with the coach  $(X \rightarrow M1 \rightarrow M2 \rightarrow Y)$ , showed statistically significant results ( $d_{21} = 0.468$ ; p = <0.001; IE = 0.098; CI = 0.020; 0.183). Finally, the total indirect effect of the model (IE = 0.310; CI = 0.138; 0.479) was significant.

# Discussion

The main objective of this study was to analyze, using a sequential mediation model, how authentic leadership and coach justice perceived by athletes influence the relationship between coach competence perceived by athletes and their satisfaction with the coach. This study completes previous research and presents a model that explains the athlete's satisfaction with their coach.

Consistent with previous research (Competence-Satisfaction), the results of our study demonstrate that the athlete's perceived competence of their coach is an important mechanism influencing the perceived satisfaction with their coach. In addition, significant indirect effects were found regarding the perception of the authentic leadership style and the justice that the coach favored with his decisions. These effects mediated a significant increase in the effect the coach's competence perceived by the athlete had on the athlete's satisfaction.

Explaining the model by parts, the results of coach competence were associated with satisfaction with the coach; this finding coincides with what was found in previous research,<sup>10,23,24</sup> and this process can have several explanations. Myers et al.<sup>48</sup> designed a multidimensional competence perception model, where the ability to motivate the athlete was a key element related to satisfaction with the coach. Our finding agrees with Pulido et al.,<sup>24</sup> who evaluated the coach's competence relationship with their satisfaction of basic psychological needs. In this sense, Jowett<sup>1</sup> tested the quality of the coach-athlete relationship through motivation, determining the consistent relationships between both together with the prediction of greater closeness, commitment, and complementarity. On the other hand, as pointed out by González-Ponce et al.,<sup>21</sup> players who have a good perception of their coaches regarding motivational competence perceived fewer relationship conflicts. In conclusion, although it is stated that there could be a strong relationship between perceived competence and satisfaction with the coach, it is necessary to continue researching to understand the relationship mechanisms better to generate environments in which the coach manages to respond to the demands of the athletes, therefore eliciting a greater commitment to the common objectives.

Aside from the relationship between competence and satisfaction, perceived justice was positively associated with athlete satisfaction. According to these results, the decisions made by coaches and how they are perceived by their athletes significantly affect satisfaction with the coach. Other studies have shown that perceived justice predicted different types of satisfaction.<sup>40,41,54</sup> In addition, the literature indicates that stronger bonds are established throughout a sports season; as an example, a direct relationship was found between the lack of justice perception and satisfaction with the coach, showing how this deteriorates throughout the season.<sup>39</sup>

On the other hand, we could consider that this relationship has a "complementary" character to the perceived competence. One explanation for this finding is that it is not enough (considered as an antecedent) that the coach is competent, but he/she also must be fair in different dimensions to reach the player's higher levels of satisfaction with the coach. For this reason, we can consider that the development of both abilities by the coach is complimentary and allows us to approach the concept called "Relational Coaching,"55 making it possible to connect more easily to obtain higher performance quotas and personal satisfaction from both. In accordance with the above, some studies have examined the relationship between competence, justice, and satisfaction.<sup>26</sup> However, it is necessary to continue investigating the mechanisms that relate both variables, how they affect the athlete's satisfaction with their coach, and the mechanisms that longitudinally protect the positive perception.

Finally, the results also found evidence of associations between authentic leadership and satisfaction with the coach; however, surprisingly, it differed from other previous investigations since there was no significant direct influence, but rather it was produced through perceived justice. A possible explanation for this result could be the multidimensionality of authentic leadership, which focuses more on the coach's capacity for self-knowledge and self-awareness than on behaviors that directly affect the athlete. The results achieved in this research coincide with another where the perception of authentic leadership increased, but greater athlete satisfaction with their coach was not achieved.<sup>36</sup> In contrast, some results directly relate authentic leadership with athlete satisfaction and greater confidence in the coach.<sup>37</sup> Therefore, it is possible

to indicate that perceived justice is a variable with complementary and necessary characteristics for developing authentic leadership to modulate coaching satisfaction.

## Practical implications

In line with the previous findings in a combined analysis of the results and the study variables, we can determine that the model analyzed in this research effectively achieves high levels of player satisfaction with their coach. Coaches must interpret these findings as an example that coaching competence itself is not the only capacity to develop that they should pay attention to if they want to achieve high levels of satisfaction with their athletes; this is due to the multidimensionality of the evaluations that the athlete makes of the coach, making it necessary to acquire behaviors that bring them closer to a greater perception of justice about the decisions they adopt. In addition, the mediating effect of authentic leadership, as has been proven with other leadership styles, can be considered a complementary variable. Thus, our results provide an effective model to achieve athletes' satisfaction with their coaches in team sports, which could be transformed into better performance.

# Limitations and future lines of research

Despite the results achieved in this research, it is necessary to carry out future longitudinal studies with an integrative nature of the variables that make up the coach's competence and its relationship with the athlete's satisfaction to identify how it is affected by perceived justice and authentic leadership. In the same way, the range of sports disciplines in which the behavior of these variables and the proposed model are studied should be expanded. On the other hand, it would be convenient to analyze the group dynamics inside the teams in future research.

# Conclusion

This study extends previous research and presents an effective model to achieve greater athlete satisfaction with their coach. In conclusion, the results allow us to understand that the research participants highlight the need for the coach to be competent and promote justice to achieve the athlete's satisfaction without neglecting the influence of an authentic leadership style since this can reinforce the relationship between the variables.

#### Acknowledgements

The authors thank the coaches and athletes from the teams and sports institutions who participated in this research.

#### **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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