Journal of Physical Education and Sport ® (JPES), Vol. 25 (issue 3), Art 58, pp. 527 - 538, March 2025
online ISSN: 2247 - 806X; p-ISSN: 2247 – 8051; ISSN - L = 2247 - 8051 © JPES

Original Article

Athletes' perspective on parental involvement, motivation, and performance throughout a football season

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Published online: March 31, 2025
Accepted for publication: March 15, 2025
DOI:10.7752/jpes.2025.03058

Abstract
Problem Statement: Athletes' goal orientation is a widely-studied topic in sports because motivation significantly influences sport participation and overall development. According to Achievement Goal Theory (AGT), athletes adopt either a task/mastery orientation – where success is determined by continuous development – or an ego orientation, where success is determined by comparison to others' performance. These orientations impact athletes' effort, perseverance and, ultimately, their performance. However, goal orientation is not only intrinsic; it can also be shaped by parental behaviors and involvement in sports. The present study tests the assumption that athletes' perception of parental involvement affects their goal achievement orientation, which, in turn, predicts their performance. **Approach:** A total of 153 young athletes competing at elite levels were followed across a football season. At Time 1 (T1), participants completed a questionnaire assessing their parents' involvement in sport (for both mothers and fathers), their own goal achievement orientation, and their perceived performance. At Time 2 (T2), the final stage of the season, they again completed a measure of perception of performance. Additionally, objective performance data were collected by researchers at both T1 and T2. **Results and Conclusions:** The results revealed that athletes' perceptions of ´parental involvement can influence their goal orientations – specifically, the involvement of their fathers, but not mothers. This, in turn, affects their perceptions of performance, though it does not have an impact on actual (objective) performance. In other words, the more athletes perceive their fathers to be involved in their sport, the stronger their mastery orientation, which contributes to a more positive perception of performance at T1 and consequently T2.
Key Words*: Achievement Goal Theory; Master Orientation; Task Orientation; Ego Orientation; Soccer.*

Introduction

Sport participation represents an excellent opportunity for young people to develop their social skills, attitudes, and motivational styles (Schwebel et al., 2016). However, this experience can be affected by social factors, especially parental behavior (Jöesaar et al., 2011). Parental involvement in sport can be displayed through a different number of specific behaviors by parents, which are perceived by athletes to have the potential to influence (both positively and negatively) their sport activity and experience, ultimately affecting the athletes' performance.

Parental behaviors associated with positive outcomes are often referred to as supportive behaviors, which include providing positive feedback and reinforcement for mastery attempts and offering praise for efforts (Dorsch, 2021). Parental support has been associated with athletes' enjoyment, continuous development, willingness to continue participating, self-esteem, perceived sport competence, and development of positive coping skills (e.g., Atkins et al., 2013, 2015; Burke, 2023; Knight et al., 2010, 2011; Mossman & Cronin, 2019; Sánchez-Miguel et al., 2013; Tamminen et al., 2016; Teques, Calmeiro et al., 2018), ultimately increasing performance. In contrast, perceived negative parental behaviors, such as unsupportive or pressuring behaviors, harsh criticism, excessive expectations or overemphasis on outcome goals (Dorsch et al., 2021), are more related to a decrease in athletes' enjoyment; lower self-competence, autonomy, relatedness and intrinsic motivation; and increased amotivation, competitive anxiety, and dropping out (e.g., Amado et al., 2015; Bean et al., 2016; Jõesaar & Hein, 2011; Knight et al., 2010, 2011; Lev et al., 2020; Ross et al., 2015; Sánchez-Miguel et al., 2013), contributing to a decrease in athlete performance.

Despite these interesting findings, there is a need to understand the complex relations between how parental involvement can be related to the psychological experiences of athletes and ultimately how these experiences may be related to sports performance. In fact, much of the actual research tests the direct relationships between parental involvement and athletes' cognitions and emotions (e.g., Charbonneau et al., 2020; Liu et al., 2024; Rouquette et al., 2021; Teques et al., 2019) not being evident how these psychological factors influence the athletes' performance. In this way, our study contributes to actual knowledge at four levels:

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(a) it is proposed an empirical model that considers both parental involvement and goal orientation and their direct and indirect effects on performance; (b) it considers both subjective and objective measures of performance (which have produced different results in the literature); (c) it encompasses two different time points throughout a sport season regarding performance; and (d) it differentiates fathers' from mothers' parental involvement. These four aspects were analyzed by considering the relationship established between parental involvement and goal orientation of athletes, the relationship established between parental involvement and the subjective and objective performance of athletes, and also by considering the overall relationship established between parental involvement, goal orientation, and performance. In the following sections, we debate in detail these sets of relations.

Parental Behaviors and Goal Orientation

Parents are, indeed, a key source of education and socialization of their children, and their actions influence children's personal and social development (Dorsch et al., 2021; Knight et al., 2016). In an achievement context – as sport competitions are – important social agents (such as parents, coaches, and peers) set the norm and communicate what defines success which, in turn, can influence young athletes' achievement goal orientations (cf. Ames, 1992; Harwood & Thrower, 2020), given the involving motivational climate.

The motivational climate can be understood in terms of the behaviors, actions, and beliefs of significant others - coaches, peers, and parents - that ultimately influence the developmental process of the athlete's goal orientation and identity (Birr et al., 2024), a process closely connected with achievement goal theory (e.g., mastery and/or ego orientation). The achievement goal theory (AGT; Nicholls, 1984,1989) is one of the most widely used motivational theories in sport. According to the AGT, individuals' motivation is defined by their perceptions of competence and definition of success, which are established by their achievement goal states, either task/mastery or ego orientation (Harwood & Thrower, 2020). Both orientations can be framed in an orthogonal manner. Thus, the individual (e.g., the athlete) can have high levels of mastery and ego orientation, have a high level in one but a low level in the other, or be low in both (Duda et al., 1995).

When athletes perceive a mastery climate, in which others emphasize effort, learning, and self-referenced improvement, they tend to develop a more mastery-oriented achievement state (Amaro et al., 2023). If athletes are task/mastery-oriented, their focus is mainly on their personal development (Dagsdóttir el at., 2023). This means that they use self-reference indicators to evaluate success, meaning that their concept of success will mainly depend on the accomplishment of personal goals; therefore, they exhibit high effort and dedication (cf. Gomes et al., 2019; Smith et al., 2007). Conversely, when athletes perceive a performance motivational climate, in which they focus mainly on outcomes (i.e., results, winning) and on outperforming others (Harwood & Thrower, 2020), an ego-oriented achievement state is more likely to emerge (Amaro et al., 2023). Ego-oriented athletes focus mainly on outperforming their peers. The perception of doing better than others, or not doing so, defines their understanding of success (Harwood & Thrower, 2020). The ability to perform also affects the athlete's orientation (e.g., mastery or ego) and, conversely, the behaviors of both the mastery and ego-orientation profiles also influence the athlete's perceived performance and objective performance. In contrast, ego-oriented athletes tend to be less consistent in their efforts (Dagsdóttir el at., 2023) when they are performing a difficult task, are prone to cheat to succeed (Gomes et al., 2019; Roberts, 2001), are less likely to cooperate (Lameiras et al., 2014), and present higher levels of competitive anxiety (Tomzack et al., 2022), which ultimately affects performance.

Previous research has shown that parental behaviors can not only influence athletes' goal orientation (e.g., O' Rourke et al., 2011) but can also outweigh the influence of coaches (O' Rourke et al., 2014; Schwebel et al., 2016). For example, in an experimental study, Gershgoren et al. (2011) concluded that ego-oriented parental feedback led to an increase in young male soccer players' ego involvement in a task, whereas players who received task-oriented parental feedback developed greater task involvement and displayed lower ego involvement in the task. Moreover, Gomes and colleagues (2019) reported that the more athletes perceive their parents to display lower support, higher expectations and performance pressure, the greater their ego orientation. In contrast, stronger perceptions of parental support and lower performance pressure predict athletes' mastery/task orientation. In summary, mastery-oriented athletes believe that performing better is success, whereas ego-oriented athletes believe that success consists in out-performing others, whereby the perceived parental involvement inherent in the athlete's motivational climate is key to their orientation development. How others behave – and particularly how parents behave - in the sport context, the role model they provide to their children, their messages about sport and the emotional support they offer, can shape athletes' participation, orientation and efforts in sports (Fredricks & Eccles, 2004, 2005) and, in turn, their performance.

Despite these interesting findings of literature, and especially findings regarding motivational climate, our study tests the assumption that athletes perceived parental involvement affects their goal achievement orientation which, in turn, predicts their performance, settling in the Achievement Goal Theory (AGT; Nicholls, 1984,1989). Nonetheless, this study aims to better explore the direct relation of goal orientation and the athlete's performance. Thus, it does not assess the involving motivational climate, but directly focus on the athlete's perception of parental, with data collected in two different moments (e.g., start of the season and end of the season) whilst differentiating the father's involvement from the mother's involvement.

Goal Orientation and Sports Performance

In addition to the complex interaction between athletes' orientation development and the surrounding motivation climate, the relationship between athletes' goal orientation and sport performance is inconsistently understood. The previous literature presents uneven results, depending on how goal orientation and performance are measured. For example, Knoblochova et al. (2021) conducted a study on 128 volleyball elite players and reported a positive association between ego orientation and objective team performance but found no relationship between mastery orientation and performance. In contrast, Cervelló and colleagues (2007) reported the opposite pattern: they surveyed 151 young tennis players before a competition, and the results revealed that a task-oriented disposition before the match was positively related to athletes' self-assessment of performance, but no relationship was found between ego-oriented disposition and self-reported performance. In a more robust methodological study, Van Yperen and colleagues (2014) conducted a meta-analysis of the experimental achievement goal manipulation literature to better understand the impact of task/mastery goals and ego-oriented avoidance or approach goals on performance, in which there was control of self-reported (e.g., do better than before) and other-reported (e.g., do better than others) conditions (Van Ypere et al., 2024). These results revealed that self-reported approach goals (both mastery and ego-oriented) and other-reported goals are positive for performance, especially mastery-oriented goals. When experimentally manipulated, induced mastery-orientation goals lead to better task performance than do ego-orientation goals (cf. Noordzij et al., 2021 for a review). Similarly, Van Yperen and colleagues (2015) showed that induced approach goals (both mastery and ego-oriented) enhance task performance, and this effect is stronger for mastery-oriented goals (compared with ego-oriented goals). Despite these interesting findings of literature, although inconsistent, our study assesses the impact of goal orientation on self-reported performance and objective performance (e.g., number of points secured by the team in the championship), while also analyzing the mediating effect of goal orientation in the relation between parental involvement and performance. Given the discrepancy of the findings of literature, by utilizing the goal orientation as a mediator, one can argue that goal orientation plays a direct and indirect effect on the athlete's performance, while considering parental involvement. Our study also enables the comparison of both the athlete's perception of the father and the mother involvement, with data collection in two different time frames that ultimately display different contexts (e.g., start of the season and end of the season).

Considering the need to study in an integrative way the complex relations between parental behaviors, goal orientations, and performance, this study established four hypotheses.

H1. The athletes' perception of parental behaviors is related to athletes' perceived performance and objective performance.

H2. There is a relation between the parental behaviors and the athletes goal orientation.

H3. There is a relation between the athletes' goal orientation disposition (e.g., task/mastery and/or ego orientation) and performance (H3a for task/mastery orientation; H3b for ego orientation).

H4. There is a relationship between athletes' perceptions of their mothers' and fathers' parental involvement in sport, the athletes' goal orientation, and self-reported and other-reported sport performance across a sport season (Figure 1).

Material & Methods

Participants

The sample included 153 young male football players competing in the national division (competitive-elite and successful-elite athletes) (cf. Swann et al., 2015) on U15 (65%), U17 (26%) and U19 (9%) teams. Athletes were aged between 12 and 19 years (M = 14.63, SD = 1.37) and had been playing at competitive levels for an average of 7 years (SD = 2.20). Their number of caps ranged from 0 to 15, with 8% of the sample having at least one appearance at the international level playing for their national teams.

Procedure

The study was approved by University of Minho's Ethics Committee (CEICSH 030/2020).

Eligibility Criteria: In this study, only male football athletes competing in the U15, U17 and U19 national championships were considered, given the elite context (e.g., division, performance) in which they perform.

Sample Size Estimation Procedure: Considering Westland's (2010) recommendation of $N \geq 50r^2 - 450r + 1100$, where r refers to the number of manifest variables divided by the number of latent variables (in this study, r = 13/3 = 4.33), a minimum of 89 participants were needed to test each model. In total, 299 participants completed T1, and 153 (51%) completed both time points; therefore, these participants were considered for the analysis.

Sampling Method and Recruitment Procedure: A list of Portuguese clubs with youth football teams (U15, U17 and U19) competing at the elite level in their age group was compiled. Twenty-seven clubs that met these inclusion criteria were contacted via email and/or telephone, and 8 (29%) agreed to take part in the study. Subsequently, a consent form explaining the details of the study was sent to the athletes' parents, asking their permission for their children's participation. Once permission was obtained from parents, the athletes were contacted to be informed of the study aims and procedures and to complete their participation agreement.

Data Collection Procedure: Data collection occurred at two different time points, always following the same procedure. First, a date was scheduled with the club. Then, prior to or after a practice, the athletes were

gathered in team facilities and asked to complete an online questionnaire on Qualtrics®. Paper questionnaires were also made available for athletes without access to their phones. The completion of the questionnaire took, on average, 15 minutes, and a member of the research team was always present.

The Portuguese youth football season is divided into two stages. The first half of the season is the "regular season", during which the teams are divided into different series (all in the same division) and compete against each other at the national level. At the end of this stage, teams either qualify for the championship group (in which the top-ranked teams of each series compete against each other to decide the national champion) or for the maintenance group (in which the lower-ranked teams of each series compete against each other for the right to remain in the elite division; losing teams are relegated to the second division). It is very important to underscore here that the number of points achieved by the teams during the "regular season" is independent of the points achieved by the teams at the end of the championship tournament. For example, a team can end the "regular season" in the last place and be assigned to the maintenance group, but this same team can end the championship group season in the first position of the teams competing in the maintenance group.

Thus, it is not possible to directly relate the points achieved by the teams during the "regular season" with the points achieved at the end of the championship. Methodologically, the main implication of this approach is that both moments were considered independently in this study. Rationally, the inclusion of two distinct moments provides two different ambitions and goals for teams: whether a team is playing to be champion or fighting to avoid relegation to the 2nd division may influence the team's motivational climate as well as the athletes' goal orientation.

Data were collected at the end of the first half of the season (during the "regular season"—from mid-November 2021 to mid-February 2022; T1) and at the end of the season (from May–June 2022; T2). The questionnaire included self-reported measures of parental involvement (T1), goal orientation (T1), and perceived performance (T1, T2). At the end of each stage, the researchers gathered data from the Portuguese Football Federation website to determine the number of points earned by each team, which was used as an "objective performance" measure.

Measures

Parental Involvement: Athletes completed the Parental Behaviors in Sports Questionnaire (PBSQ, Gomes et al., 2019, Teixeira et al., 2024) to assess (1 = *Never,* 5 = *Always*) how often their father and mother (or similar significant figures) display 18 behaviours related to (1) Sport support, which refers to parents displaying satisfaction and support concerning the sport activity of their children (e.g., "My mother/father is happy that I practice this sport," 4 items, for this study: $\alpha_{fatherT1}$ = .91, $\alpha_{motherT1}$ = .78); (2) Competition attendance, which is related to the presence of parents at sport competitions as a way of supporting their children's participation in sport (e.g., "My mother/father watches my games/competitions," 3 items, for this study: $\alpha_{fatherT1}$ = .96, $\alpha_{motherT1}$ = .95); and (3) Technical influence, which is related to the tendency of parents to provide suggestions about how their children can improve their technical skills and how they should train and compete (e.g., "My mother/father gives me advice about how I should train and play/compete", 4 items, for this study: $\alpha_{fatherT1}$ = .95, $\alpha_{motherT1}$ = .91); (4) Performance pressure, which concerns the expression of negative reactions from parents regarding poor performance of their children (e.g., "My mother/father is disappointed in me if I play/compete badly", 4 items, for this study: $\alpha_{fatherT1}$ = .94, $\alpha_{motherT1}$ = .94); (5) Sport expectations, referring to the expression of positive expectation about the future success of their children in sports (e.g., "My mother/father believes that I can become a successful athlete in the future ", 3 items, for this study: $\alpha_{fatherT1}$ = .73, $\alpha_{motherT1}$ = .73). Participants'). The participants' responses were averaged to compute a score for the mother and a score for the father for each dimension, with higher scores indicating a greater frequency of behaviours. A global score of parental involvement was also computed on the basis of the average of all dimensions ($\alpha_{fatherT1}$ = .77, $\alpha_{motherT1}$ = .71). Confirmatory factor analysis confirmed the five-dimensional structure of the instrument: $\chi^2(123) = 203.44$, $\chi^2/df = 1.65$, $p < .001$; CFI = .962, PCFI = .773; RMSEA = .066 (90% C.I. [.049; .081], $p_{close} = .059$); SRMR = .063.

Goal Orientation: The athletes completed the Achievement Goal Scale for Youth Sports (AGSYS, Cumming et al., 2008; Portuguese version translated by Cruz, 2008; cf. also Gomes et al., 2019) by rating how truthful to their athletic experience (*1 = Not at all true, 5 = Very true*) each of 12 statements was. The instrument assessed two dimensions: (1) Ego orientation (e.g., "The most important thing is to be the best athlete", 6 items, α_{study} = .89) and (2) Mastery orientation (e.g., "My goal is to learn new skills and get as good as possible, 6 items, α_{study} = .71"). The participants' responses were averaged to create a score for each dimension. The higher the scores are, the greater their ego and mastery orientation.

Perceived Performance: The Sport Performance Perception Questionnaire (SPPQ, Gomes et al., 2019) was used to assess athletes' perceptions of their individual and collective performance. To this end, the athletes were asked to rate their agreement (1 = *Completely disagree,* 5 = *Completely agree*) with 10 statements evaluating their perceptions of (1) Individual performance (e.g., "Until this moment, in the games/matches that I performed…", 5 items, α_{T1} = .85, α_{T2} = .89) and (2) Collective performance (e.g., "In my last game/competition of my team, we performed as expected", 5 items, α_{T1} = .83, α_{T2} = .87). A score for each dimension was calculated on the basis of the participants' average response. Higher values indicate more positive perceptions of performance.

Objective Performance: An objective measure of team performance was gathered on the basis of public information provided by the Portuguese Football Federation. The research team collected each team's number of points at the end of each stage of the competition. Because the different series in which teams were competing could have slightly different numbers of teams (e.g., Group 1 could have ten teams competing and Group 2 nine teams), the number of points earned by the teams was divided by the total number of possible points (a ratio was calculated).

Results

Preliminary Data Analysis

The first step consisted of checking normality and multicollinearity assumptions. The variables' skewness and kurtosis were analyzed, and if all values were between -3 and 3 and between -10 and 10, respectively, an assumption was considered satisfied (cf. Kline, 2015). On the basis of these criteria, no severe deviations from normality were found (-2.06 > *sk* < 0.25; -0.86 > *ku* < 5.55). With respect to multicollinearity, the criteria were met, as all the Pearson correlations were below .80 and the variance inflation factor (VIF) coefficients were < 5 (cf. Marôco, 2014; Father's model: all $r < .61$ and VIF < 2.23; Mother's model: all $r < .53$ and VIF < 2.16). Table 1 summarizes the means, standard deviations and correlations among the variables of the study.

Table 1

Means, Standard Deviations, and Pearson correlations among study variables.

	M(SD)	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Fathers' involvement	3.84(0.81)									
2. Mothers' involvement	3.35(0.76)	.40***								
3. Ego orientation	3.47(1.06)	.33***	.18*							
4. Mastery orientation	4.62(0.45)	.32***	.32***	.31***						
5. Individual PP (T1)	3.43(0.91)	.20*	.26**	.19*	.38***					
6. Collective PP (T1)	3.83(0.74)	.12	.19*	.17*	.14	.51***				
7. Objective CP (T1)	0.73(0.25)	.07	.14	.01	.11	.04	.25**			
8. Individual PP (T2)	3.45(0.98)	.01	.08	.05	.26**	.58***	.18*	-.01		
9. Collective PP (T2)	3.85(0.82)	-.16	.01	-.07	.08	.27***	.27***	.22**	.48***	
10. Objective CP (T2)	0.40(0.17)	-.09	-.12	-.03	-.01	-.11	-.45***	-.23**	.03	-.07

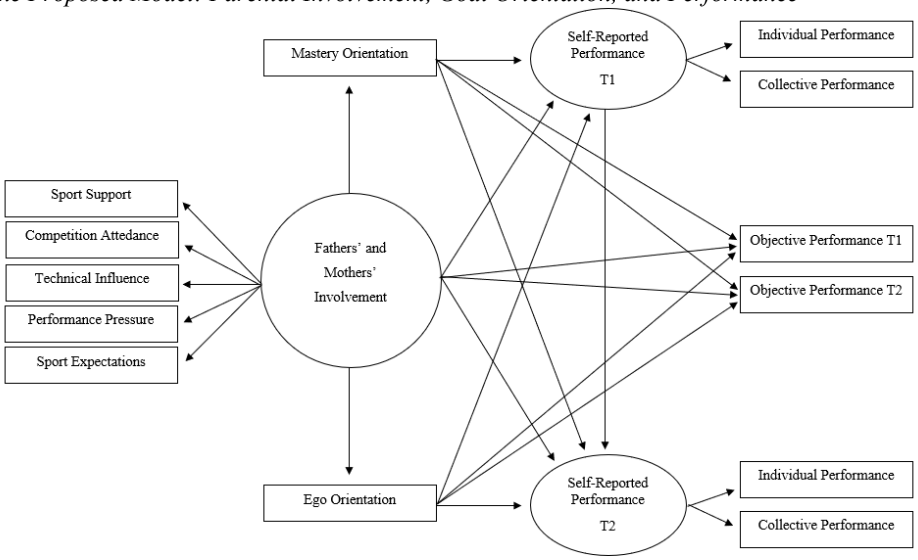
Note: **p* <.050, ***p* <.010, ****p* <. 001. *Legend:* Individual PP = Individual performance perception; Collective PP = Collective performance perception; Objective CP = Objective collective performance

Structural Equation Modelling

The proposed conceptual model was tested via structural equation modelling (SEM) and AMOS® software (IBM, v. 28). The SEM analysis was conducted twice: once for the perceptions of parental behaviours by the father and once for the same perceptions but with respect to the mother. A number of different indicators were used to assess model fit, namely, chi-square statistics (χ^2), the confirmatory fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). CFI values of .95 and .90, RMSEA values of .06 and .08, and SRMR values below .05 and .10 were considered good or adequate fits, respectively (cf. Hu & Bentler, 1999; Marôco, 2014). Figure 1 summarizes the proposed model.

Figure 1

The Proposed Model: Parental Involvement, Goal Orientation, and Performance



Testing the Proposed Model: *The results showed that the proposed model for fathers' involvement had an excellent fit to the data [$\chi^2(34) = 50.86$, $\chi^2/df = 1.50$, $p = .032$; CFI = .969, PCFI = .422; RMSEA = .057 (90% CI [.018; .088], $p_{close} = .336$); SRMR = .056; AIC = 190.86; BCC = 205.06, MECVI = 1.35] and that the model for mothers' parental involvement had a good fit to the data [$\chi^2(34) = 58.04$, $\chi^2/df = 1.71$, $p = .006$]; CFI = .948, PCFI = .413; RMSEA = .068 (90% CI [.036; .098], $p_{close} = .338$); SRMR = .094; AIC = 198.04; BCC = 212.24, MECVI = 1.40]. The direct and indirect effects are summarized in Table 2.*

Table 2

Direct and indirect effects of the fathers' and mothers' parental involvement model.

	Fathers' parental involvement				Mothers' parental involvement			
	b	**SE**	***p***	***β***	***b***	**SE**	***p***	***β***
Direct effects								
Parental involvement -> PP T1 (H1)	0.10	0.09	.260	.09	-0.02	0.03	.375	-.02
Parental involvement -> Objective CP T1 (H1)	0.03	0.02	.157	.13	0.01	0.01	.474	.02
Parental involvement -> PP T2 (H1)	-0.12	0.08	.123	-.11	-0.03	0.03	.292	-.02
Parental involvement -> Objective CP T2 (H1)	-0.01	0.01	.631	-.04	-0.01	0.01	.352	-.03
Parental involvement -> Ego O (H2)	**0.49**	**0.10**	**<.001**	**.44**	**0.17**	**0.08**	**.034**	**.17**
Parental involvement -> Mastery O (H2)	**0.15**	**0.04**	**<.001**	**.34**	-0.02	0.02	.302	-.04
Ego orientation -> PP T1 (H3a)	0.03	0.08	.686	.03	0.05	0.05	.439	.06
Ego orientation -> Objective CP T1 (H3a)	-0.02	0.02	.283	-.09	-0.01	0.02	.601	-.04
Ego orientation -> PP T2 (H3a)	-0.01	0.07	.867	-.01	-0.04	0.07	.546	-.04
Ego orientation -> Objective CP T2 (H3a)	0.01	0.01	.491	.06	0.01	0.01	.586	.04
Mastery orientation -> PP T1 (H3b)	**0.75**	**0.17**	**<.001**	**.32**	**0.73**	**0.16**	**<.001**	**.31**
Mastery orientation -> Objective CP T1 (H3b)	0.06	0.05	.155	.12	0.08	0.05	.093	.14
Mastery orientation -> PP T2 (H3b)	0.23	0.17	.156	.09	0.25	0.16	.125	.10
Mastery orientation -> Objective CP T2 (H3b)	-0.01	0.03	.983	-.01	-0.01	0.03	.975	-.03
Perceived Performance T1 -> PP T2	**0.49**	**0.08**	**<.001**	**.46**	**0.43**	**0.07**	**<.001**	**.41**
Perceived Performance T1 -> Objective CP T2	-0.02	0.01	.188	-.11	-0.02	0.01	.157	-.10
Indirect effects								
PI -> Ego O -> PP T1 (H4)		0.05	.562	.01		0.03	.675	.01
PI -> Ego O -> Objective CP T1 (H4)		0.01	.207	-.01		0.01	.580	<-.01
PI -> Ego O -> PP T1 -> PP T2 (H4)		0.02	.632	<.01		0.01	.674	<.01
PI -> Ego O -> PP T1 -> Objective CP T2 (H4)		0.01	.366	<.01		0.01	.931	<.01
PI -> Ego O -> PP T2 (H4)		0.03	.988	<-.01		0.02	.660	-.01
PI -> Ego O -> Objective CP T2 (H4)		0.01	.496	.01		0.01	.652	<.01
PI -> Mastery O -> PP T1(H4)		**0.07**	**.026**	**.11**		0.04	.818	-.01
PI -> Mastery O -> Objective CP T1 (H4)		0.01	.133	.01		0.01	.915	<.01
PI -> Mastery O -> PP T1 -> PP T2 (H4)		**0.03**	**.014**	**.05**		0.02	.818	-.01
PI -> Mastery O -> PP T1 -> Objective CP T2 (H4)		0.01	.080	-.01		0.01	.818	<.01
PI -> Mastery O -> PP T2 (H4)		**0.05**	**.038**	**.05**		0.02	.798	<-.01
PI -> Mastery O -> Objective CP T2 (H4)		0.01	.795	<.01		0.01	.933	<.01
PI -> PP T1 -> PP T2 (H4)		0.05	.206	.04		0.03	.730	-.01
PI -> PP T1 -> Objective CP T2 (H4)		0.01	.127	-.01		0.01	.787	<.01
Ego O -> PP T1 -> PP T2		0.04	.801	.01		0.04	.680	.02
Ego O -> PP T1 -> Objective CP T2		0.01	.457	<.01		0.01	.930	<-.01
Mastery O -> PP T1 -> PP T2		**0.11**	**.006**	**.30**		**0.10**	**.010**	**.31**
Mastery O -> PP T1 -> Objective CP T2		0.01	.140	-.01		0.01	.325	-.01

Legend: O = Orientation; PI = Parental involvement; PP = Perceived Performance; Objective CP = Objective collective performance.

Direct Effects of Parental Involvement: Regarding the direct effects (Figures 2 and 3), the involvement of either the father or the mother significantly predicted the athlete's perceived performance, contrary to expectations (H1). The more athletes perceive their father to be involved in the sport, the greater their ego and mastery goal orientations are, thus partially supporting H2. Consistent across both parents, athletes' mastery orientation positively predicted their perceived performance at T1, as expected (H3b). However, ego orientation did not significantly predict perceived or objective performance (H3a). These effects do not concern mothers' involvement. Perceived performance at T1 predicted perceived performance at T2.

Figure 2
Fathers' Involvement: Significant Direct Effects

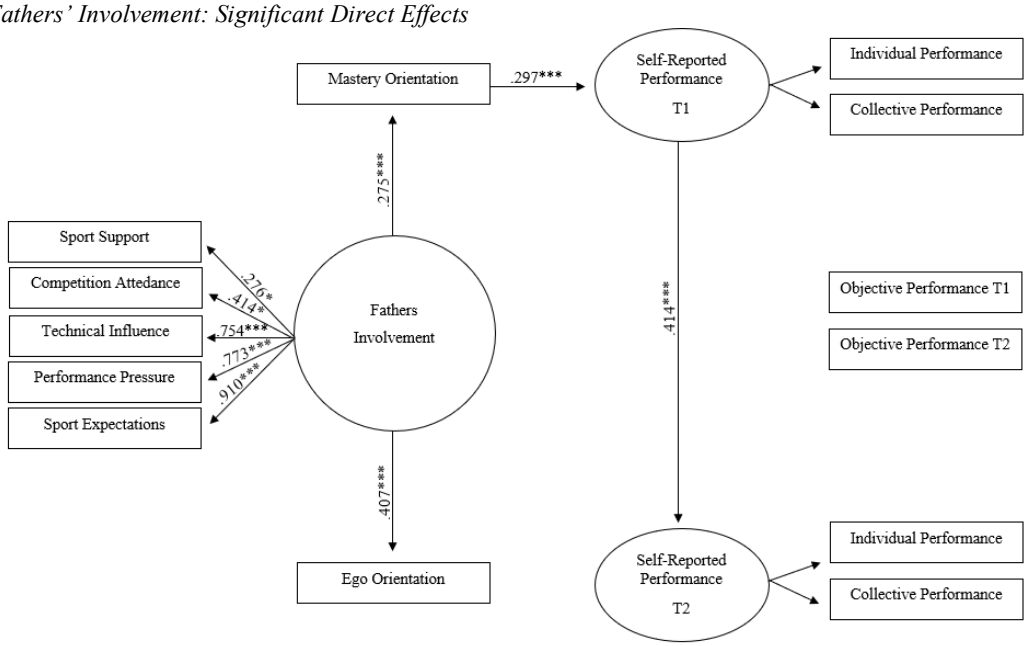
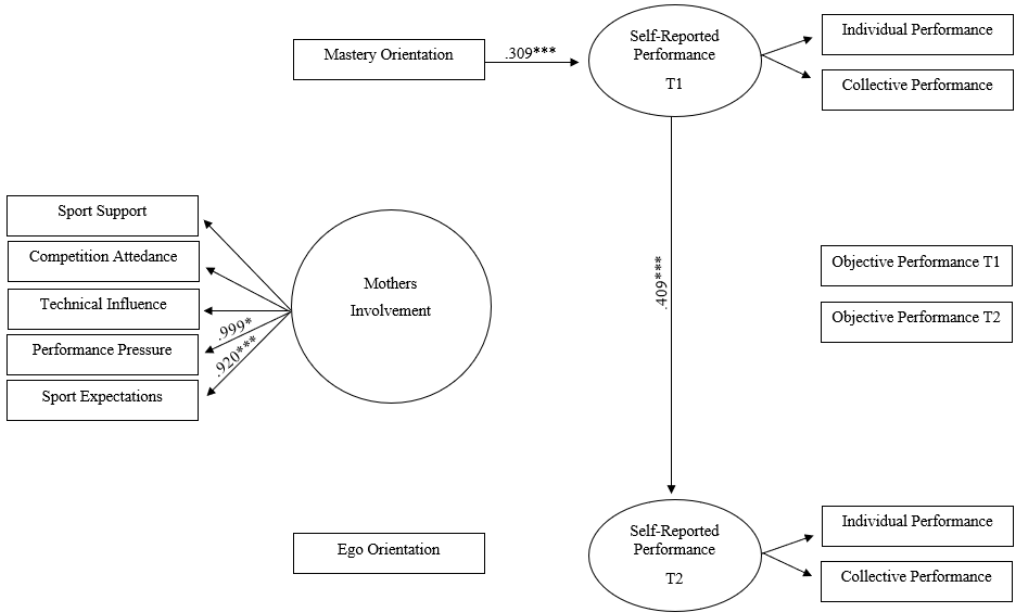


Figure 3
Mothers' Involvement: Significant Direct Effects



Indirect Effects of Parental Involvement: With respect to the mediating effects of parental involvement on athletes' performance, no significant effects of mothers' involvement were found. In contrast, the more athletes perceive their fathers to be involved in their sport, the greater their mastery orientation, which contributes to higher perceptions of performance at both T1 and T2. Perceived performance at T1 mediated the relationship between mastery orientation and perceived performance at T2 for both models.

Exploratory Analyses

At an exploratory level, a hierarchical regression was conducted to assess the impact of the perceived father's and mother's behaviors (e.g., Sport Support; Competition Attendance; Technical Influence; Pressure to Perform; Sport Expectation) on the task/mastery and/or ego-orientation development, while controlling for age at the beginning and end of the season (Table 3). With respect to athletes' ego orientation, the results show that lower perceptions of support and greater performance pressure and expectations predict greater ego orientation and that this result is consistent with both fathers' and mothers' behaviors. With respect to mastery orientation, only perceptions of mothers' support emerge as a predictor.

Table 3

Hierarchical Regression: Predictive father and mother behaviors on task/mastery-orientation and ego-orientation.

	Father's parental involvement				Mother's Parental Involvement			
	b	**β**	**t**	***p***	**b**	**β**	**t**	***p***
Ego Orientation (T1)	[F (6, 152) = 7.49; p <.001, R^2= .235]				[F (6, 152) = 6.76; p <.001, R^2= .217]			
Sport support	-.378	-.245	-2.281	**.024**	-.513	-.345	-3.606	**<.001**
Competition attendance	.001	.001	.008	.994	.040	.047	.560	.577
Technical influence	.107	.118	1.107	.270	-.067	-.079	-.856	.393
Performance pressure	.216	.274	3.368	**<.001**	.185	.214	2.594	**.010**
Sports expectations	.287	.300	3.064	**.003**	.383	.393	4.070	**<.001**
Mastery Orientation (T1)	[F (6, 152) = 4.33; p <.001, R^2= .151]				[F (6, 152) = 3.80; p =.002, R^2= .135]			
Sport support	.085	.129	1.144	.254	.154	.243	2.412	**.017**
Competition attendance	-.049	-.131	-1.293	.198	-.002	-.005	-.055	.956
Technical influence	.065	.168	1.494	.137	.031	.084	.872	.385
Performance pressure	.030	.091	1.059	.291	.017	.046	.535	.594
Sports expectations	.065	.159	1.544	.125	.031	.074	.733	.465

Discussion

A better grasp of young athletes' psychological development can be obtained if a multidimensional perspective is adopted by considering multiple factors that shape sport experience (Benfoechea et al., 2015). Our study is consistent with this view, considering social variables (i.e., parental involvement) as well as psychological ones (i.e., goal orientation) as they relate sport performance. Overall, the results show that the motivational climate of the perceived parental involvement shapes athletes' goal orientations, which, in turn, contributes to athletes' perceptions of performance but not to their actual (objective) performance.

One important outcome that should be highlighted is that fathers' and mothers' parental involvement are perceived differently by athletes. Specifically, the measure used to assess parental involvement included five different types of behaviors: parents showing satisfaction that their children are involved in sport (support dimension), parents attending their children's competitions (competition attendance), parents providing feedback and suggestions on technical aspects of sport (technical influence), parents expressing positive expectations regarding their children's success in sport (sport expectations) and, finally, a negative dimension, parents reacting negatively towards poor performance (performance pressure). However, excessively high expectations, which have been considered in previous studies as a negative dimension of parents' involvement in sport (e.g., Bois et al., 2009; Gomes et al., 2019, Gould et al., 2008), were positively perceived by the athletes studied here. In other words, the athletes did not perceive performance pressure as negative (it was positively correlated with the remaining dimensions), which seems to suggest that if parents "care about their sport participation," athletes perceive those behaviors as being an expression of support, thus inducing a carrying context.

It is important to note, however, that this dimension assumed different forms for fathers and mothers. While all five different behavioral dimensions were considered to express fathers' involvement, for mothers, only sport expectations and performance pressure positively contributed to the athletes' perceptions of involvement. Moreover, only the perceived fathers' involvement contributed to the involved motivational climate, which ultimately predicted athletes' goal achievement orientations. The fact that mothers' and fathers' involvement in sport has different outcomes for athletes, particularly in terms of their goal orientation, is not new (e.g., Gomes et al., 2019) and can be partially explained by the nature of the sample, particularly in terms of gender (all males) and sport activity (football). To some extent, stronger involvement from fathers would be expected, as football is a male-dominant sport in Portugal, and its strong role in the athletic socialization of male and female athletes has been consistently reported (cf. Dorsch et al., 2021 for a review). Regardless, the differences between mothers' and fathers' parental involvement need to be discussed carefully, and future studies should aim to replicate our findings in a more diverse sample. Moreover, previous studies have suggested that other environmental factors can affect athletes' perceptions of parental involvement. In particular, the setting in which parental feedback and support occurs (e.g., competitions *vs*. training *vs.* at home) and their timing (e.g., before, during or after a competition) affect athletes' preferences regarding parental involvement (cf. Burke, 2023; Knight et al., 2010, 2016) and, therefore, their perceptions of what constitutes "positive *vs.* negative" parental behaviors as well as the perceived motivational climate. Future research should consider the inclusion of such features.

Nevertheless, consistent with previous studies (e.g., Fredericks & Eccles, 2004, 2005; Gomes et al., 2019; Knight et al., 2016; O' Rourke et al., 2011), athletes' perceptions of positive fathers' involvement in sport increased their ego and mastery achievement goal orientations. This result is consistent with the idea that parents are important social agents and set the norm of what constitutes success (e.g., task/mastery-oriented or performance-oriented), influencing their children's goal orientation or, in other words, shaping their children's efforts and behaviors when practicing sports. This approach is also in line with the AGT model assumptions that a positive parental-initiated motivation climate, sustained by parents' positive involvement, promotes mastery goal orientations, which, in turn, has positive consequences for children's relationships with sport (Gomes et al., 2019); in this case, it increases positive perceptions of performance. Moreover, this relationship between higher levels of mastery goal orientation and more positive perceptions of performance is also consistent with the theoretical framework, specifically, with the idea that if athletes use a self-reference indicator of success (i.e., one more focused on their continuous development) this would lead to higher perceptions of performance, even if not necessarily better results (objective performance), as shown in this study.

Different results regarding the relationship between perceived performance and objective performance have also been reported in previous studies. Consistent with our findings, Cervelló and colleagues (2007) reported a positive association between athletes' mastery orientation and perceived performance (and no relationship between perceived performance and ego orientation). However, other studies have reported results different from our findings, specifically, a relationship between both goal orientations and perceived performance as well as stronger relationships between mastery-oriented goals and objective performance (cf. Noordzij et al., 2021; and Van Yperen, 2014, for a review). Our findings provide support for a relationship between mastery orientation and perceived performance, but no significant relationships were found between goal orientation and objective performance. This outcome can be at least partially explained by the fact that the objective performance measure used in this study was a collective measure, as we registered the team's ranking points in both phases of the season, and no individual objective measures of performance were used. This is an important limitation that should be considered in future studies.

Finally, the present study considered perceived reported and objective performance across a football season, collecting data at two key time points during this period. The results show that only perceptions of performance at T1 predicted perceptions of performance at T2, and neither variable predicted objective performance. Importantly, stage 1 and stage 2 of the season are quite different, and the quality of the teams involved at each stage (as well as the goals of the teams) are very different. On the basis of the results obtained by each team at the end of stage 1, it is determined whether a team will play to become champion or if it will fight to avoid relegation to the 2nd division, which may help explain the absence of predictor variables (the main such variable used in this study considered individual and not team/environmental factors). This result suggests that other variables important for explaining performance should be considered in future studies or, alternatively, that individual objective measures of performance should be considered.

Conclusions and Implications for Practice

Parental involvement in sport and goal orientations represent major topics related to young athletes' participation in sport (Atkins et al., 2015; Schwebel et al., 2016). However, the different relationships established among these topics have not received equal attention, especially considering the different effects produced by fathers' and mothers' behaviors (Gomes et al., 2019; Holt & Knight, 2014). Thus, the present research is important for showing how parental involvement - considering mothers and fathers separately - influences athletes' goal orientation and performance across a football season and how athletes' perceptions shift over time (e.g., the positive perception of pressure to perform). More specifically, our results support the idea that fathers' expression of appreciation and satisfaction with their children's sport activities promotes athletes' internal standards of achievement (mastery orientation), which, in turn, leads to a more positive perception of their performance by the athletes, which is not necessarily related to performance (i.e., results) itself.

These results emphasize redefining the term "success" as it is used in sport, highlighting that athletes' perceptions of their parents' focus prioritize personal involvement over results. This point is very significant considering previous research showing that when parents emphasize children's continuous development (mastery orientation) it enhances the children's perceptions of competence, autonomy and relatedness and their overall sport enjoyment (cf. Burke 2023; Harwood et al., 2015). Thus, this study has important practical implications, reinforcing the need to educate parents and athletes regarding what constitutes positive (and appropriate) and negative behaviors in competitive settings as well as the critical need to align children's and parents' expectations regarding the children's involvement, as children and parents tend to interpret feedback and verbal communication related to sport differently (cf. Elliott & Drummong, 2017). At the same time, coping strategies to address disruptive parental behaviors and a lack of success in the sport context are recommended for athletes to prevent stress symptoms (Daumiller et al., 2022), ultimately contributing to athletes' development, goal orientation and, finally, performance.

Acknowledgements

The research team would like to thank student Teresa Ramos for her help in data collection.

Declaration of interest statement The authors have no conflict of interests to declare.

Data availability statement Data will be available upon request.

Funding statement

This study was conducted at two different research centres: Research Centre for Human Development (supported by the Foundation for Science and Technology, ref. UIDB/04872/2020) and by the Psychology Research Centre (CIPsi/UM) School of Psychology, University of Minho (supported by the Foundation for Science and Technology, ref. UIDB/01662/2020)

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