

## Article

# Team Dynamics Perceptions, Motivation, and Anxiety in University Athletes

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**Abstract:** This study aimed to evaluate the interrelation between team dynamics with motivation types and anxiety factors in university athletes, highlighting the role played by team members' point of view and coach's point of view. Participants were 674 university athletes, men (46.4%) and women (53.6%), from different sports, with an age range between 18 and 28 years ( $M = 21.06$ ;  $SD = 2.07$ ). Instruments used were Cooperation Workteam Questionnaire (CWQ), the Sports Motivation Scale (SMS-II), and the Sports Anxiety Scale (SAS-2). The model from the team member's point of view presented adequate fit indices ( $\chi^2 (924) = 2690.17$ ,  $\chi^2/df = 2.91$ , CFI = 0.90, RMSEA = 0.05), same as the model from the coach's point of view ( $\chi^2 (924) = 2692.82$ ,  $\chi^2/df = 2.99$ , CFI = 0.90, RMSEA = 0.05). The results obtained in both models show five indirect effects, two of them between team dynamics from both points of view with somatic anxiety and deconcentration, with autonomous motivation as a mediator, and the other three between the team dynamics from both perspectives with somatic anxiety, worry, and deconcentration, having controlled motivation as a mediator.

**Keywords:** team dynamics; motivation; anxiety



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## 1. Introduction

Group dynamics has been recognized as an important branch within sports psychology [1], because it has helped to describe “the influential actions, processes, and changes that occur within and between groups” [2] (p. 2) providing important information about your understanding. Dynamics between coaches and athletes is another way of understanding groups, which have been widely examined from a leadership perspective [3,4].

One of the theories used to demonstrate the influence on the effectiveness of leadership and the behavior of the members of the work team is Fit Theory [5–7]. This theory mentions that the person–environment fit originates from two basic assumptions: (1) that human behavior is a function of the person and the environment, and (2) that the person and the environment must be compatible [8].

However, research carried out through this theory has found some deficiencies on how to measure the fit between the person and the environment, and how to determine the optimal fit relationships between them, especially since individualistic approaches have been used [9].

To resolve these deficiencies, a new psychological approach has been created based on a general analysis of the personal relationship in a work team [10], which has expanded the Fit Theory from the organizational field to other areas of human performance. This approach uses a model that combines five conceptual frameworks related to the psychological dynamics of the cooperative team (coordination, cohesion, cooperation, integration, and identification), which are represented by a hierarchical pyramidal model in which each level generates greater personal involvement, a greater workload, and a more complex psychological process, which generate team dynamics [10]. In addition, knowledge has

been obtained about the metadynamics of cooperation in teams, as well as about the fit between the beliefs of the team members from two different perspectives, team member's point of view and coach's point of view, in their performance and the teamwork they do [11].

These team dynamics have been preliminarily evaluated using an instrument that aims to evaluate two different points of view in the same individual, in this case evaluating the athlete from the team member's point of view and from the coach's point of view [11]. These points of view are supported by two theories, the first of which is the Fit Theory and its concept of congruence, which is the reciprocal relationship in which the personality of an individual and the work environment mutually respond with the individual meeting the requirements of the environment and the work environment. This "congruence" is a dynamic process between people and the conditions of their performance [12–14].

The second theory in which these two points of view are supported is the theory of cognitive dissonance, which proposes the generation of cognitive and emotional tension between the way a person performs and their beliefs about it. The existence of this tension (dissonance) is uncomfortable for individuals, which will motivate them to reduce it and try to achieve consonance [15].

There is research that has used this new psychological approach from the organizational level [16] and sports [17,18] in which it has been found that there are differences when the athlete is perceived from his role within the team (team member's point of view) and when it is perceived from a different role (coach's point of view).

On the other hand, one of the variables that have a great influence within sports teams and in addition to the most studied is sport motivation, which is seen as a complex phenomenon because there are multiple reasons why athletes perform their sport [19]. One of them can be because it is intrinsically interesting or pleasant, and on the other hand, as a means of social recognition or to obtain awards and compliments [20]. According to the SDT, there are different types of motivation that represent qualitatively different ways in which a behavior can be regulated [21–23].

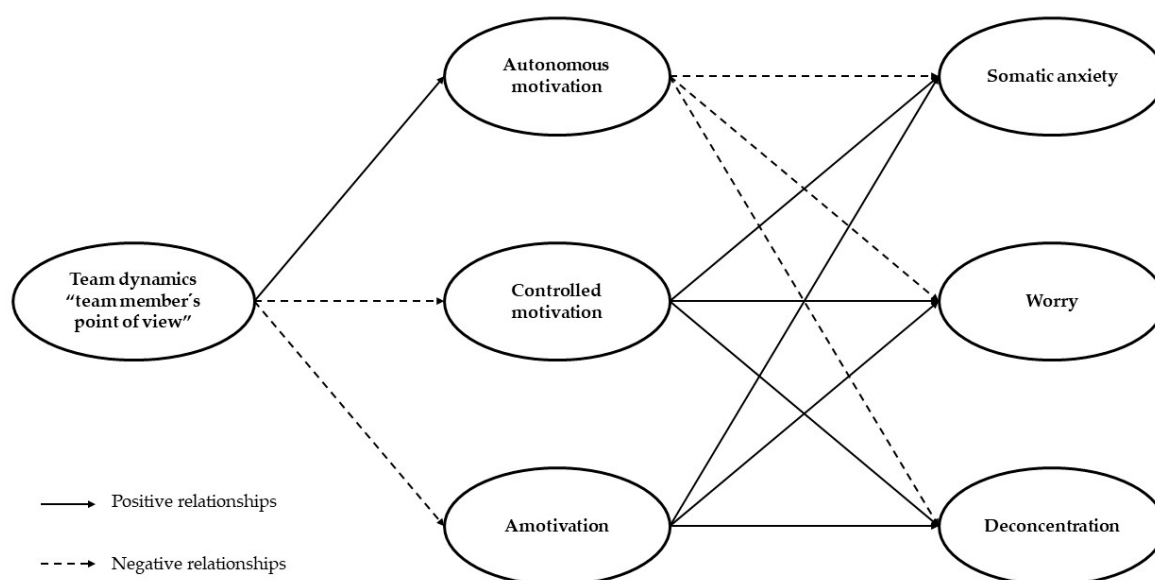
Autonomous motivation comprises both intrinsic regulation and the types of extrinsic motivation in which people value activity (identified regulation) and will have integrated it into their sense of self (integrated regulation). Controlled motivation consists of both external regulation, in which one's behavior is a function of external contingencies of reward or punishment, and introjected regulation, in which the regulation of action has been partially internalized and is energized by factors such as an approval motive, avoidance of shame, and ego-involvements [24]. Finally, there is amotivation, which refers to the lack of intention and sense to act [21].

On the other hand, one of the variables that has been related to motivation and one of the most studied in sport is anxiety [25,26]. Anxiety is defined as an emotional state characterized by apprehension and tension [27], associated with the activation of the organism that occurs in competitive situations [28,29]. Competitive anxiety, in addition to evaluating somatic elements, also does so with cognitive elements. The first of these is the worry, understood as worry regarding the consequences that the athlete perceives as potentially negative associated with poor performance. Whereas, the second cognitive element is deconcentration, associated with the difficulty that athletes experience in focusing on important aspects when performing a task, which prevents them from thinking clearly during a competition [30].

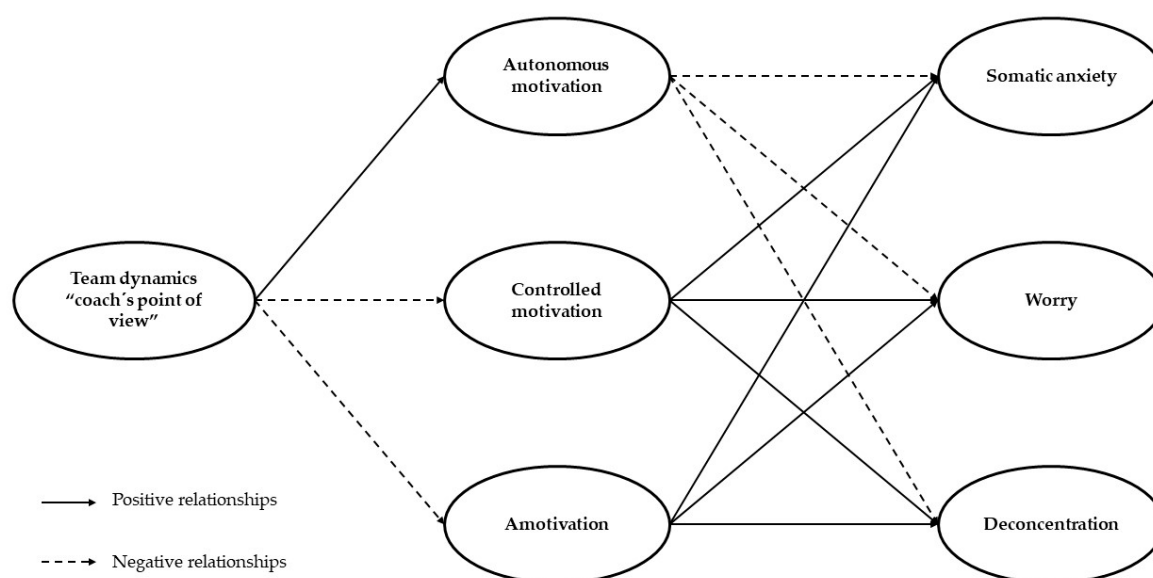
On the other hand, it is important to mention that some of the conceptual frameworks that support team dynamics in the sports context have been associated with motivation, such as cohesion [31,32], cooperation [33], and identification [34]. Similarly, there are studies where anxiety with cohesion [35], and with cooperation [36] has been researched. However, most of these investigations have been carried out at the correlation level. Furthermore, there is no research that associates team dynamics through this model with other variables of great importance within sports.

It is for this reason and based on the previous arguments, the aim of this research is to analyze and deepen the understanding of sports teams by evaluating the team dynamics generated by the five conceptual frameworks and associating them with the motivation types and anxiety factors in university athletes, highlighting the role played by the two points of view: team member's point of view and coach's point of view, through a Structural Equation Model (SEM). The study of SEM has taken importance in sport field [26,37–40] three of these investigations highlighting the mediating role of motivation [26,37,39], and one of them having anxiety as an output variable [26] like this research.

For the above, and in order to fulfill the aim of this research, the following six hypotheses were raised: (1) when comparing the interrelationships of the different perspectives of the team dynamics from team member's point of view/coach's point of view with the motivation types and anxiety factors, the sense of the relationship is the same; (2) team dynamics from the team member's point of view are positively related to autonomous motivation and this, in turn, negatively to somatic anxiety, worry and deconcentration; Likewise, team dynamics from the team member's point of view are negatively related to controlled motivation and amotivation, and these, in turn, positively with somatic anxiety, worry, and deconcentration (see Figure 1); (3) team dynamics from the coach's point of view are positively related to autonomous motivation and this, in turn, negatively to somatic anxiety, concern, and deconcentration; Likewise, team dynamics from the coach's point of view are negatively related to controlled motivation and amotivation, and these, in turn, positively to somatic anxiety, worry, and deconcentration (See Figure 2); (4) Autonomous motivation mediates the relationship between team dynamics from the team member's point of view and the coach's point of view, and somatic anxiety, worry, and deconcentration; (5) controlled motivation mediates the relationship between team dynamics from the perspectives of team member's point of view and coach's point of view, and somatic anxiety, worry, and deconcentration; and (6) Amotivation mediates the relationship between team dynamics from the perspectives of team member's point of view and coach's point of view, and somatic anxiety, worry, and deconcentration.



**Figure 1.** Representation of Structural Model of team dynamics from the team member's point of view.



**Figure 2.** Representation of Structural Model of team dynamics from coach's point of view.

## 2. Materials and Methods

### 2.1. Participants

The selection of the sample was non-probabilistic of the intentional type. The total sample consisted of 674 athletes representing different team sports from their educational institution (basketball, 11.7%; baseball, 17.4%; association football, 18%; fast soccer, 15.7%; handball, 10.4%; softball, 15%; and volleyball, 11.9%) participating in a national university sporting event. The participants were 313 men (46.4%) and 361 women (53.6%) with ages ranging between 18 and 28 years ( $M = 21.06$ ;  $SD = 2.07$ ) with a mean of 8.61 years of experience in their sport ( $SD = 5.15$ ).

### 2.2. Instruments

To measure team dynamics, the Cooperative Workteam Questionnaire [11] was used, which consists of 12 items divided into four factors: global cooperation (6 items); personal growth (4 items); emotional cooperation (3 items) and conditional cooperation (2 items). To evaluate team member's point of view/coach's point of view, the same item was evaluated from each point of view related to team member's point of view (Form A) and coach's point of view (Form B). Below we show examples of items for each of the factors from the two points of view: global cooperation, "Communication between the members of my team is clear and fluid both in training and in the game" (Form A) versus "Communication between the team members are clear and fluent both in training and in the game" (Form B); personal growth, "Some of my best friends are on the team" (Form A) versus "Some of my best friends are members of the team" (Form B); emotional cooperation, "My team is spread by the mood of a key player or coach, both for better and for worse" (Form A) versus "The team is spread by my mood or from a key player, both for good and for the wrong" (Form B); and finally, conditional cooperation "My level of work and effort depends on others and how things are working" (Form A) versus "My level of work and effort depends on team members and how things are working" (Form B). The response scale is Likert-type, ranging from 1, "totally disagree" to 5, "totally agree". To evaluate a single construct of team dynamics, the values of the four factors [11,18] were averaged, demonstrating adequate unifactorial internal consistency in both perspectives [18].

To evaluate the *types of motivation*, the Mexican Spanish version [41] of the Sport Motivation Scale (SMS-II, [42]) was used, which is composed of 18 items divided into six regulations: intrinsic (3 items); integrated (3 items); identified (3 items); introjected (3 items); external (3 items); and amotivation (3 items). Examples of items for regulations: intrinsic,

“Because I’m excited to learn more about my sport”; integrated, “Because practicing sports I reflect the essence of who I am”; identified, “Because it is one of the best ways I have to develop other aspects of myself”; introjected, “Because I would feel bad if I didn’t take the time to do it”; external, “Because the people I care about would be upset with me if I don’t”; and for amotivation, “I am not sure, I really don’t think this is my sport.” The scale is evaluated by a Likert scale from 1 which means “never” to 7 which means “always.”

This instrument has shown adequate internal consistency in different investigations [26,39,43]. Likewise, the grouping of regulations in different types of motivation has been used. Autonomous motivation is composed by intrinsic regulation, integrated regulation, and identified regulation [26,39]; controlled motivation is composed by introjected and external regulation [26,41]. For this research, the three types of motivation (autonomous, controlled, and amotivation) have been considered, as they are used in several studies with sports teams [26,41].

Finally, to evaluate the anxiety factors, the Spanish version was used [44] of the Sport Anxiety Scale in (SAS-2, [45]) which consists of 15 items divided into three subscales, somatic anxiety (5 items), worry (5 items), and deconcentration (5 items). Examples of items for each subscale are somatic anxiety, “I feel like my body is tense”; worry, “I am worried about not playing or competing well”; and deconcentration, “It is difficult for me to concentrate on the game or the competition.” Each item is answered using a 4-point Likert scale that ranges from 1 which means “nothing” to 4 which means “much.” This instrument has been used in various studies demonstrating the reliability of the instrument in its three factors [46,47].

### 2.3. Procedures

The present study was carried out in accordance with the Declaration of Helsinki. The data collection was carried out during the 15 days of the National Universiade in Mexico. Contact with the teams was made directly with the coaches with whom the opportune moment was agreed for the application of the questionnaires to their athletes. The inclusion criteria to participate in the study required players who participated in team sports and the exclusion criteria required the removal of those athletes who represented two sports or who participated in individual sports. The questionnaires were applied in different places depending on the availability of the teams; some preferred to answer them in the dining room set up for the event and others in the sports facilities. The responses to these questionnaires were anonymous and voluntary, with an average duration of 15 min.

### 2.4. Data Analysis

Descriptive analysis of each of the study variables (mean, standard deviation, skewness, kurtosis) and the Kolmogorov–Smirnov test were performed to evaluate the normality of the data. The Spearman correlation was used to analyze the interrelationships between the model variables and establish the degree of association between them. Descriptive and correlational analyses were performed using the SPSS 24.0 statistical software.

Subsequently, to test the SEM, the AMOS 24.0 software was used, in which the goodness of fit indices were taken into account, such as chi-square divided by degrees of freedom ( $\chi^2/\text{df}$ ), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) [48–52]. The following criteria were used to assess the fit of the models: a ratio  $\chi^2/\text{df}$  less than 3 [53]; for CFI, values greater than 0.90 [50]; in the RMSEA case, values lower than 0.08 [54]. Likewise, the Mardia kurtosis coefficient [55] and the *bootstrap* method were used. On the other hand, to know the mediation and indirect effects, the Mackinnon coefficient was used [56]. Finally, to compare the models the following criteria were considered: values close to 0 for the Akaike Information Criterion (AIC); for the Parsimonious Normed Fit Index (PNFI), minimum differences of 0.06 and 0.09; and for the Parsimonious Goodness of Fit Index (PGFI), values close to 1 [57].



### 3. Results

First, the descriptive analysis, internal consistency, and correlations of the variables (hypothesis 1) are presented; second, two models of structural equations are tested, from team member's point of view (hypothesis 2) and from coach's point of view (hypothesis 3). Finally, the mediations of autonomous motivation (hypothesis 4), controlled (hypothesis 5), and amotivation (hypothesis 6) are presented.

#### 3.1. Descriptives, Reliability, and Correlations

Table 1 presents the descriptive statistics of the study variables. The skewness and kurtosis data show that the data are within the range  $-2$  to  $2$  [58], except for autonomous motivation, whose values were 2.38 and 7.38. However, the Kolmogorov–Smirnov test shows that the study variables are distributed in a non-parametric way ( $p < 0.05$ ).

**Table 1.** Descriptive statistics of the variables.

Variable	Rank	M	DT	Skewness	Kurtosis	K-S
Team dynamics, team member's point of view	1–5	4.00	0.61	−0.87	1.70	0.07
Team dynamics, coach's point of view	1–5	4.00	0.68	−0.94	1.63	0.09
Autonomous motivation	1–7	6.17	1.03	2.38	7.38	0.21
Controlled motivation	1–7	3.93	1.44	0.68	−0.55	0.18
Amotivation	1–7	2.59	1.98	1.08	−0.18	0.21
Somatic anxiety	1–4	1.71	0.62	0.99	0.68	0.15
Worry	1–4	2.75	0.85	−0.23	−0.87	0.09
Deconcentration	1–4	1.73	0.63	0.88	0.50	0.12

Table 2 shows correlations and reliability of the variables considered in the study. Cronbach's alpha values were above 0.76, this reliability level of the whole scales is to be considered satisfactory. The results correlation analysis revealed a significant positive relationship of team dynamics from two points of view: team member's point of view/coach's point of view with autonomous motivation ( $r_s = 0.42$ , and  $0.42$ ,  $p < 0.01$ ) and controlled motivation ( $r_s = 0.23$ , and  $0.14$ ,  $p < 0.01$ ). While team dynamics from coach's point of view was positively and significantly related to amotivation ( $r_s = -0.09$ ,  $p < 0.05$ ), however, team member's point of view was also positively associated, but it was not significant ( $r_s = -0.07$ ,  $p < 0.05$ ). On the other hand, team dynamics from its two points of view team member's point of view/coach's point of view is negatively and significantly correlated with somatic anxiety ( $r_s = -0.17$ , and  $-0.18$ ,  $p < 0.01$ ), worry ( $r_s = -0.16$ , and  $-0.17$ ,  $p < 0.01$ ), and deconcentration ( $r_s = -0.22$ , and  $-0.25$ ,  $p < 0.01$ ).

**Table 2.** Correlations and reliability of the variables.

Variable	1	2	3	4	5	6	7	8
1. Team dynamics, team member's point of view	(0.83)							
2. Team dynamics, coach's point of view	0.72 **	(0.87)						
3. Autonomous motivation	0.42 **	0.42 **	(0.94)					
4. Controlled motivation	0.23 **	0.14 **	0.23 **	(0.76)				
5. Amotivation	−0.07	−0.09 *	−0.20 **	0.48 **	(0.87)			
6. Somatic anxiety	−0.17 **	−0.18 **	−0.17 **	0.10 *	0.15 **	(0.83)		
7. Worry	−0.16 **	−0.17 **	−0.03	−0.05	−0.10	0.41 **	(0.88)	
8. Deconcentration	−0.22 **	−0.25 **	−0.24 **	0.07	0.22 **	0.61 **	0.47 **	(0.84)

Note. The number in parentheses represent the reliability coefficient. \*  $p < 0.05$ , \*\*  $p < 0.01$ .

### 3.2. Structural Equation Models

For both models of team dynamics regarding team member's point of view/coach's point of view, given that the univariate distribution was non-normal, the Mardia kurtosis coefficient [55] was used to determine the multivariate distribution. This coefficient had values of 497.55 and 496.09, respectively, which indicates a non-normal multivariate distribution of the data, so it was necessary to use the *bootstrap* method. Some authors have verified that robust measures, which are generally used for non-normal multivariate distributions, exhibit ranges from  $-2$  to  $2$  in skewness and kurtosis [59,60]. When evaluating the range ( $-2$  to  $2$ ) of skewness and kurtosis of all the items that make up each of the questionnaires, we found that of the 12 items of the Cooperative Workteam Questionnaire from team member's point of view, only items 7 and 8 were out of range; for coach's point of view the items were normal, except for item 7.; of the 18 items on the Sports Motivation Scale, 10 items (items 1, 2, 3, 4, 5, 6, 7, 8, 9 and 11) were out of range. These results were in contrast to the Sports Anxiety Scale where all the items were within the range.

The hypothetical model of team dynamics from team member's point of view (see Figure 3) presented adequate fit indices ( $\chi^2_{(924)} = 2690.17$ ,  $\chi^2/df = 2.91$ , CFI = 0.90, RMSEA = 0.05). This confirms from team member's point of view that team dynamics are positively related to autonomous motivation ( $\beta = 0.41$ ,  $p < 0.001$ ) and with controlled motivation ( $\beta = 0.10$ ,  $p < 0.001$ ). Whereas, autonomous motivation is negatively related to somatic anxiety ( $\beta = -0.11$ ,  $p < 0.01$ ) and deconcentration ( $\beta = -0.17$ ,  $p < 0.001$ ). On the other hand, controlled motivation is positively related to somatic anxiety ( $\beta = 0.19$ ,  $p < 0.001$ ) and deconcentration ( $\beta = 0.17$ ,  $p < 0.001$ ) and negatively with worry ( $\beta = -0.12$ ,  $p < 0.01$ ).

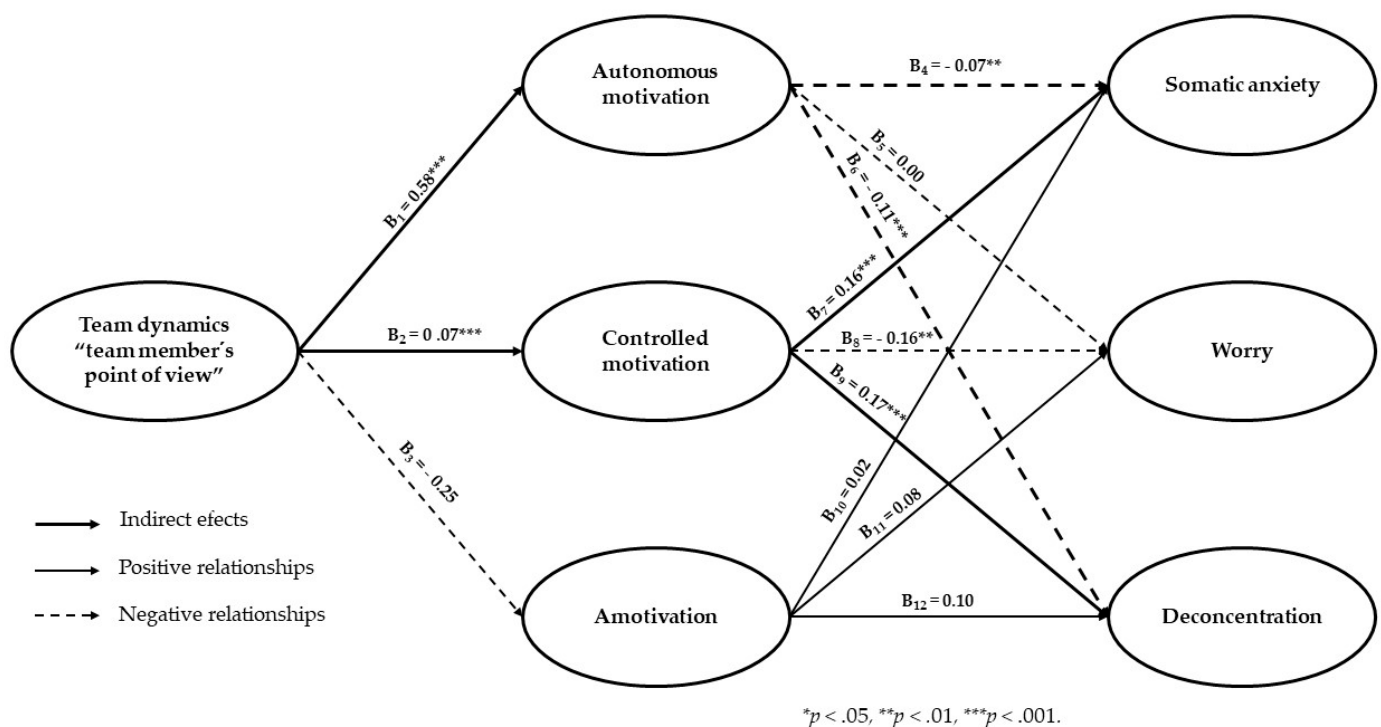


Figure 3. Structural equations model of team dynamics from team member's point of view.

According to the results obtained in the model, we can observe that there are five indirect effects according to the MacKinnon coefficients [56]. The first of them shows that autonomous motivation mediates the relationship between team dynamics from team member's point of view with somatic anxiety and deconcentration ( $B_1 * B_4 = -0.05$ ,  $p < 0.001$ ;  $B_1 * B_6 = -0.08$ ,  $p < 0.001$ ). On the other hand, we observe that controlled motivation mediates the relationship between team dynamics from team member's point

of view with somatic anxiety ( $B2 * B7 = 0.02, p < 0.001$ ), worry ( $B1 * B8 = -0.02, p < 0.001$ ), and deconcentration ( $B1 * B9 = 0.02, p < 0.001$ ).

The team dynamics model from coach's point of view (see Figure 4) presented adequate fit indices ( $\chi^2_{(924)} = 2692.82, \chi^2/df = 2.99, CFI = 0.90, RMSEA = 0.05$ ). This confirms from coach's point of view that team dynamics are positively related to autonomous motivation ( $\beta = 0.42, p < 0.001$ ) and with controlled motivation ( $\beta = 0.07, p < 0.05$ ). While autonomous motivation is negatively related to somatic anxiety ( $\beta = -0.11, p < 0.01$ ) and deconcentration ( $\beta = -0.16, p < 0.001$ ). On the other hand, controlled motivation is positively related to somatic anxiety ( $\beta = 0.19, p < 0.001$ ) and deconcentration ( $\beta = 0.17, p < 0.001$ ), and negatively with worry ( $\beta = -0.11, p < 0.01$ ).

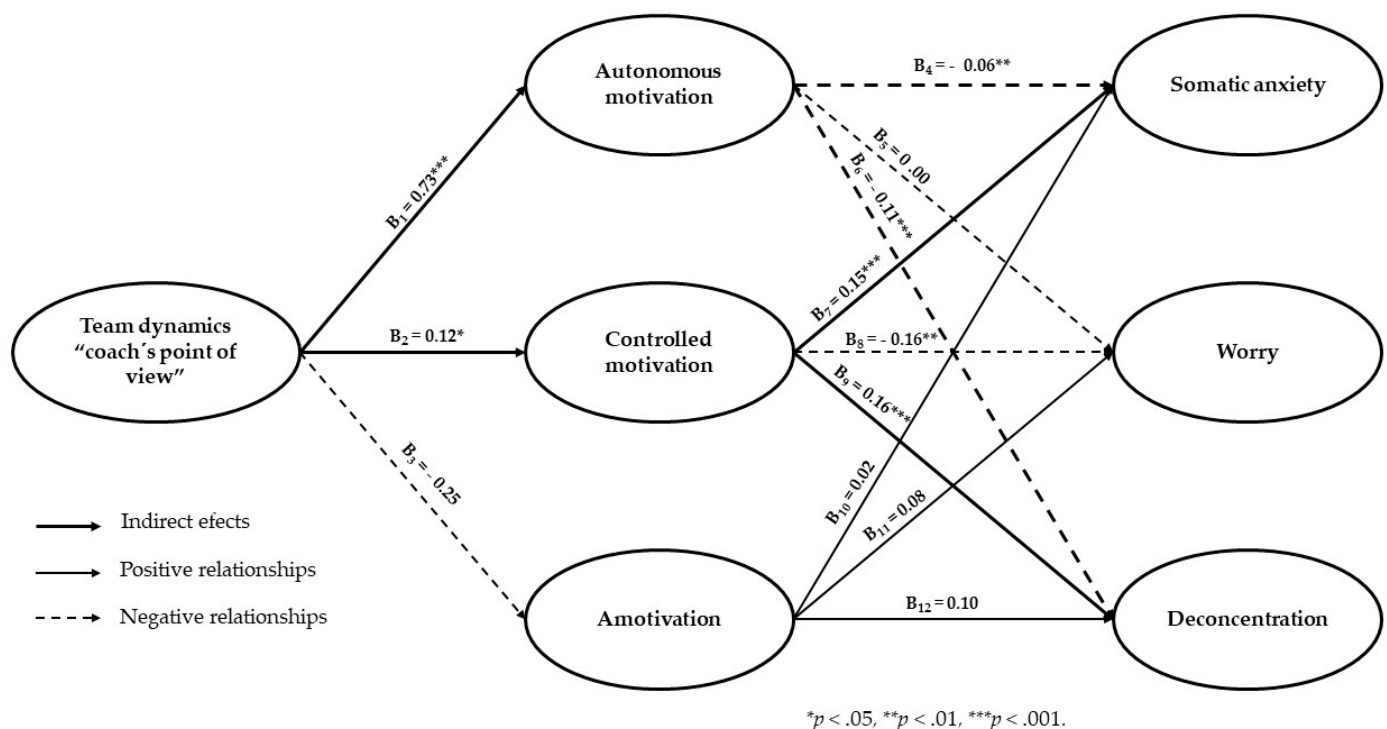


Figure 4. Structural equations model of team dynamics from coach's point of view.

According to the results obtained in the model, we can observe that there are five indirect effects according to the MacKinnon coefficients [56]. The first of them shows that autonomous motivation mediates the relationship between team dynamics from coach's point of view with somatic anxiety and deconcentration ( $B1 * B4 = -0.04, p < 0.001$ ;  $B1 * B6 = -0.07, p < 0.001$ ). On the other hand, we observe that controlled motivation mediates the relationship between team dynamics from the perspective of coach's point of view with somatic anxiety ( $B2 * B7 = -0.01, p < 0.001$ ), worry ( $B2 * B8 = 0.01, p < 0.001$ ) and deconcentration ( $B2 * B9 = -0.01, p < 0.001$ ).

Finally, regarding the comparison of the models, we can observe similar values in the parsimony fit index from both points of view, team member's point of view/coach's point of view (AIC = 2912 and 2986; PNFI = 0.801 and 0.800; PGFI = 0.756 and 0.759).

#### 4. Discussion

The study aimed to compare two models of interrelations between the perception of team dynamics from two points of view, team member's point of view and coach's point of view, motivation types, and the anxiety factors in university athletes.

For this, six hypotheses were raised to test the proposed model. In the first place, it was suggested that the interrelationships both from team member's point of view and from coach's point of view would go in the same direction [18], which is consistent with



the results obtained, where we found that team dynamics from both points of view were positively related to autonomous and controlled motivation and negatively to amotivation, somatic anxiety, worry, and deconcentration, that is, that the relationships coincided in the direction they took in both points of view, which shows that there is an adjustment in congruence [12–14] and a dissonance [15] on the part of the team members through this double perception of their point of view.

Subsequently, in the second and third hypotheses, it was stipulated that team dynamics from team member's point of view and from coach's point of view were positively related with autonomous motivation and thus, in turn, negatively with somatic anxiety, worry, and deconcentration; likewise, team dynamics from both points of view were negatively related to controlled motivation, and amotivation, and these, in turn, were positively related to somatic anxiety, worry, and deconcentration. The results confirm the positive relationship between the perception of team dynamics from team member's point of view and coach's point of view with autonomous motivation, and the negative relationship (not significant) with amotivation [61], which shows that no matter from which point of view they perceive themselves, athletes will be willing to cooperate within their teams [17,18], in addition to being motivated to participate in activities that challenge their skills [21]. However, controlled motivation (as well as autonomous motivation) presented positive relationships with team dynamics, contrary to what we had established in the hypothesis. These results suggest that team members feel completely involved in the tasks to be carried out and that their behavior is not only directly motivated by themselves but it is also regulated by external agents [62,63].

Likewise, and following the sequence proposed by the previous hypotheses, autonomous motivation was negatively related with somatic anxiety, worry, and deconcentration, which suggests that internally motivated athletes could have less predisposition to present any of the anxiety factors, results similar to other studies where self-determined motivation does not influence the probability of presenting anxiety [25,26,64]. On the other hand, controlled motivation was positively related to somatic anxiety and deconcentration, but not with worry (contrary to what was established in the hypothesis). These results suggest that athletes motivated by an external agent could present some physiological symptoms before the competition, contrary to other studies where controlled regulations do not have any correlation with somatic anxiety [65,66] and it could lead to a loss of focus on competition, contrary to what was found in other studies [25]. Regarding the negative relationship of controlled motivation with worry, it is worth noting as student athletes, many of them are concerned about their academic training [67,68], which is often found "conditioned" by some incentives such as some financial reward or a scholarship [18,26]. Amotivation, as established in the hypothesis, was positively related to somatic anxiety, worry, and deconcentration, although in no case significantly so.

On the other hand, in the fourth, fifth, and sixth hypotheses, it was established that autonomous motivation, controlled motivation, and amotivation mediate the relationship between team dynamics (team member's point of view/coach's point of view), with somatic anxiety, worry, and deconcentration. The results show that autonomous motivation mediates the relationship between team dynamics and somatic anxiety and worry, while controlled motivation mediates the relationship between team dynamics and anxiety factors (somatic anxiety, worry, and deconcentration), these results differ from those found in other studies where autonomous motivation does not play a mediating role with somatic anxiety and where controlled motivation does not play a mediating role with any of the anxiety factors [26,64], likewise, in another study, amotivation does not exert any influence on any of the anxiety factors [25]. Meanwhile, in this research, amotivation did not have any mediating role contrary to what was found in other studies where a mediation role with somatic anxiety was found [26,64], which goes against the theoretical assumptions of the SDT where negative emotions are expected to be associated with less self-determined forms of motivation [69].

The results of this study provide empirical evidence that helps to confirm the sequence of the relationship between these variables since this relationship had not been tested. It is explored in the two points of view (team member's point of view/coach's point of view), the motivation types, and the anxiety factors, showing that the team members have similar points of view when they look at themselves as players or coaches.

The results of the present study suggest that it is important to emphasize the need to continue promoting cooperation within teams, which could result in an increase in player motivation and a decrease in anxiety. On the other hand, an intervention on Team Building, as has been recommended [10,16] and applied [17], could help promote the improvement of team dynamics (mainly) and the other variables in this study.

Finally, the main limitations of this study concern how the data were collected since they were collected during a national competition and at different times depending on the availability of the equipment. Another limitation is that transversality that only allows the adjustment of the model in a single time, while a longitudinal design would give us more accurate results about the causal relationships that we intend to demonstrate, and that would help us to deepen our understanding of sports teams. Furthermore, these results should be viewed with caution since the sample consisted of team sports and the results could vary in individual sports with and without contact. Another important factor to consider in future studies is the type of university; in this case, they were public universities, and the support with respect to private universities could have some influence on the results of the study. On the other hand, we believe that it would be interesting to expand this research towards the coaches to find out their opinion when it is perceived from both points of view and to analyze it with the opinions of the players on their team.

## 5. Conclusions

In conclusion, we can observe that team dynamics play an important role in the commitment that members acquire, in both perspectives, team member's point of view and coach's point of view, to fulfill their roles within the team and that, in turn, these dynamics are capable to foster some kind of motivation. On the one hand, team dynamics (regardless of perspective) lead to autonomous motivation and this in turn reduces the possibility of presenting precompetitive anxiety and, on the other hand, when there are motivated in a controlled way, they tend to perceive somatic anxiety and deconcentration prior to competition.

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