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## LEADERSHIP, COHESION AND SATISFACTION: DIFFERENCES BETWEEN SWIMMING AND HANDBALL PORTUGUESE TEAMS

### LEADERSHIP, COHESION AND SATISFACTION: DIFFERENCES BETWEEN SWIMMING AND HANDBALL PORTUGUESE TEAMS

A. RUI GOMES\*

HEITOR LOPES

RUI TROCADO MATA

*Universidade do Minho, Escola de Psicologia, Portugal*

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**Resumen:** Este estudio analiza las diferencias entre atletas de balonmano ( $n = 260$ ) y natación ( $n = 207$ ) en la percepción del liderazgo de los entrenadores, así como en los niveles de cohesión y satisfacción. Fueron analizados tres aspectos: *i*) diferencias en la percepción de los estilos de liderazgo; *ii*) diferencias en los niveles de cohesión y satisfacción; y *iii*) predicción de la satisfacción de los atletas con el liderazgo de los entrenadores. Resultados: *i*) los atletas de natación evaluaron más positivamente a los entrenadores y asumieron mayores niveles de cohesión y satisfacción; *ii*) se obtuvieron diferencias en la evaluación del liderazgo en función del sexo, nivel competitivo, años de trabajo con el entrenador y resultados deportivos alcanzados con el entrenador actual; y *iii*) se verificó una mayor capacidad para predecir la satisfacción con el liderazgo en el balonmano que en la natación. Finalmente, se discuten algunas implicaciones para la intervención y la investigación.

**Palabras clave:** liderazgo en el deporte, cohesión, satisfacción.

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The study of leadership in sport contexts has been conducted under the observation of the leadership styles that are most related to performance, as well as the coaches' actions that exert an influence on the athletes' psychological and emotional well-being (Horn, 2008). It is in this sense that one can understand the definition of leadership proposed by Barrow (1977), focusing on the behavioral processes assumed by coaches to influence their teams and their athletes towards certain goals. From this point of view, research has focused its interest on the analysis of the most effective leadership styles, namely on the team's performance and on the athletes' reactions and responses (e.g., cohesion, satisfaction, commitment towards the goals, compatibility with the coach, etc.).

**Abstract:** Differences between 260 handball and 207 swimming athletes in perception of coaches' leadership besides cohesion and satisfaction levels are analyzed. Three aspects were considered: *i*) perception of leadership style; *ii*) cohesion and satisfaction levels, and *iii*) prediction of athletes' satisfaction. Results: *i*) more positive evaluation of swimming coaches with assumed more cohesion and satisfaction levels; *ii*) differences in leadership perception were identified regarding gender, competitive level, years of work and in sport records achieved with current coach; and *iii*) greater capacity to predict athletes' satisfaction with leadership in handball than in swimming was verified. Implications for intervention and future research are discussed.

**Keywords:** leadership in sport, cohesion, athletes satisfaction.

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The multidimensional model of leadership (Chelladurai & Saleh, 1978) was one of the most advanced proposals in the study of leadership in sports, considering how the leader, the athlete and the situation interact to explain the nature of a leader's influence on the team's performance and in the athletes' satisfaction. The model stated that coaches need to achieve congruence between the behaviors required by the context, those preferred by the athletes and the ones they actually assume in the daily work environment. Thus, if the leader's real behavior matches the athlete's preference and the situation requirements, then higher performance and satisfaction will be achieved. By doing so, coaches can increase their chance of achieving success in sports and the tendency of pro-

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\* Dirigir correspondencia a: A. Rui Gomes, Universidade do Minho, Escola de Psicologia, a/c de Doutor Rui Gomes, Campus de Gualtar, 4710-057 Braga, Portugal, Telf. +253604232. Correo electrónico: rgomes@psi.uminho.pt

moting more positive experiences in athletes. In general, research confirms that the congruence between required, preferred and actual behaviors produces several desirable effects, namely more satisfaction and better performance in the teams (Chelladurai, 1980; Horne & Carron, 1985; Riemer & Chelladurai, 1995; Weiss & Friedrichs, 1986), a greater orientation to task execution (Gardner, Shields, Bredmeier, & Bostrom, 1996; Pease & Kozub, 1994) and more athlete's favorable attitudes towards their coaches (Chelladurai, 1984).

The search for leadership styles and actions that promote these effects, lead Chelladurai (2001) to suggest that research in sport context should integrate the most recent advances in the study of this subject, that is charismatic and transformational leadership (see Bass, 1990; Conger & Kanungo, 1987). In this case, the existence of certain leaders whose actions and relationship with group members lead to changes and transformations beyond what is normally expected is suggested (see Bass, 1990; Bass & Avolio, 1997; Brown & Dodd, 1999; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Indeed, individuals who are lead by visionary, charismatic or transformational leaders (depending on the conceptual approach) seem to be more committed to the vision and goals of the team and show a greater personal sacrifice and will to renounce of their personal interests on the behalf of a collective ideal of well-being (Bryman, 1992; Conger, 1989; Sashkin, 1988).

Despite the interest of these ideas in the explaining of the relationship between the leader and the team members, very few studies have been done concerning charismatic or transformational leadership in sport. For example, Zacharatos, Barling, and Kelloway (2000) analyzed the impact of adolescents' leadership styles on subjective performance measures within team sports, and concluded that the ones who assumed transformational leadership were assessed in a more positive way by their peers and coaches. Charbonneau, Barling, and Kelloway (2001) found that intrinsic motivation mediated the effect of transformational leadership in university sports. More recently, Vallée and Bloom (2005) pointed out that some aspects of transformational leadership, like inspirational motivation, idealized influence and intellectual stimulation (measured by the Multifactor Leadership Questionnaire-MLQ; Bass & Avolio, 1997), were dimensions that could explain the behaviors of expert coaches. In a more intentional attempt to apply these ideas to sports leadership,

Rowold (2006) used the Multifactor Leadership Questionnaire (MLQ-5X) to examine the students' perceptions of sports coaches' leadership in a martial arts setting, and found that transformational leadership added unique variance to the explanation of sports coaches' effective leadership behaviors.

Although the obvious interest of these studies, there are issues that limit the knowledge of transformational leadership in sport, namely, the focus on other figures than the coach, the assessment of transformational leadership with single scales, and even the use of the MLQ that derives directly from organizational psychology, being questionable if the instrument considers the specificities of the sport's context and coaches' actions.

Considering these ideas as a starting point, the present study analyzed the leadership perceptions of athletes practicing individual (swimming) and collective (handball) sports, including in this analysis some traditional dimensions of coaches' actions (see Chelladurai & Saleh, 1978; Riemer, 2007) as well as new areas, suggested by the charismatic and transformational approaches (Bass & Avolio, 1997; Burns, 1978; Conger & Kanungo, 1987; House & Shamir, 1993; Sashkin, 1988). On the other hand, those leadership behaviors were related to athletes' cohesion and satisfaction, observing as well the leadership dimensions that could explain the athletes' satisfaction with leadership.

It should be noted that the relationship between leadership, cohesion and satisfaction, has been a major subject of concern in sport psychology research. Starting with athlete satisfaction, it has been defined as a "positive affective state resulting from a complex evaluation of the structures, processes, and outcomes associated with athletic experience" (Chelladurai & Riemer, 1997, p. 135). There are several reasons why this concept is important in sport, namely, the relationship with performance, cohesion and leadership, the implications in the way sport programs are structured and the fact that member satisfaction (and individual performance) could be a consequence of specific coaching behaviours (Chelladurai, 1993; Riemer & Chelladurai, 1998). Besides, there are indications referring to the relationship between athletes' satisfaction and coaching behaviors (e.g., training and instruction, positive feedback and social support) (Horn, 1992).

Regarding cohesiveness, it can be defined as a "dynamic process that is reflected in the tendency of a group

to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs" (Carron, Brawley, & Widmeyer, 1998, p. 213). This concept has assumed two major categories of member perceptions (Widmeyer, Brawley, & Carron, 1992). The first one is related to *group integration*, that represents members' perceptions of the group as a totality, and the second one refers to *attraction to the group* that represents each member's personal attraction to the group. It should be noted that these two dimensions could be further divided into task orientation (e.g., motivation to achieve the group's objectives) and social orientation (e.g., motivation toward developing and maintaining social relations and activities in the group). It is accepted that the relationship between leadership, cohesion, and performance is complex, but the coach's decision style and compatibility with the athletes can have an influence on the level of cohesiveness within the team (Carron, 1993).

Despite the importance of satisfaction and cohesion in sports, less is known about the impact of transformational leadership in athletes' personal and sport experiences, and the same could be said about the differences in the perception of coaches' behaviors in athletes that practiced individual and collective sports. At this level, it is particularly relevant to distinguish between "closed" sports that are performed in a relatively stable, static, and unchanging environment (e.g., gymnastics, swimming), and "open" sports that are performed in an environment that is constantly changing (e.g., soccer, handball). In this case, a distinction should be made between sports that require a high interdependency among athletes in order to be successful (e.g., handball) and sports that don't require such interdependency among team members (e.g., swimming) (Horn, 1992). Despite the fact that the preferred coaching behaviors differ across different sports and according the interdependency of athletes (Chelladurai, 2007; Horn, 2008; Riemer, 2007; Riemer & Chelladurai, 1995), there are no indications referring to the relationship with transformational leadership.

In sum, besides the limited knowledge about the impact of charismatic and transformational leadership in sports, there is also little information about the differences in the perception of leadership styles, cohesion and satisfaction from individual and collective sports athletes. The combination of these needs and ideas in the leadership

study were the basis for the present study. In this sense, the following goals were established:

- i) Analyzing the differences between swimming and handball athletes concerning their perception of leadership styles;
- ii) Analyzing the differences between swimming and handball athletes concerning their cohesion and satisfaction experience;
- iii) Analyzing which leadership variables best predict athletes' satisfaction with leadership.

## METHOD

### *Participants*

The present study involved two sports, swimming ( $n = 207$ ) and handball ( $n = 260$ ). In swimming, 99 male (47.8%) and 108 female athletes (52.2%) were included, whereas in handball 165 male (63.5%) and 95 female athletes (36.5%) were included. The ages ranged from 13 to 24 years old in swimming ( $M = 16.9$ ;  $SD = 2.19$ ) and from 16 to 37 years old in handball ( $M = 22$ ;  $SD = 4.37$ ). In the competitive level, athletes were divided into two groups: younger or "juniors" (usually with ages between 14 and 18 years old) and older or "seniors" (usually older than 18). In the last case, athletes were mainly competing at a higher level in their sport. In swimming, 102 juniors (49.3%) and 105 seniors (50.7%) were included, while in handball 53 juniors (20.4%) and 207 seniors (79.6%) were included. A significant percentage of athletes competed in the main divisions of their sport (32.4% in swimming and 56.5% in handball). In swimming, the majority of athletes had been working with the current coach over more than a year (72.9%), and the same condition occurred in handball (63.8%). In terms of sport records, in swimming 37.7% of the athletes had achieved national champions' results with the current coach and in handball 12.3% had reached the same position.

## INSTRUMENTS

All the participants were given a questionnaire that included the following instruments:

### Demographic Questionnaire

This questionnaire assessed personal and sport variables (e.g., sex, age, type of sport and competitive level). Additionally, information was collected concerning the athletes' career (e.g., years of participation in the sport, sport records obtained with the current coach, and years of work with the current coach). This questionnaire's development was based on instruments similar to those used by Chelladurai and Reimer (1998) and Cruz and Antunes (1997), and some questions were adjusted to the purpose of the present study.

### Multidimensional Scale of Leadership in Sport (MSLS; Gomes, 2008)

This instrument assesses leadership behaviors assumed by coaches and includes nine dimensions and fifty three items answered in a "Likert" scale: *i*) training and instruction: training processes, teaching methods and indications given by the coaches about what athletes should do or how they can improve their sport skills; *ii*) personal respect and fairness: the coach's tendency to treat athletes with justice and impartiality, considering in his decisions the personal and human aspects of the members of the team; *iii*) social support: the coach's behaviors toward athletes' well-being, showing personal concern about their problems, as well as an interest in developing informal personal relationships; *iv*) vision for the future and optimism: enthusiastic and optimistic coaches' behaviors concerning the objectives and tasks to be accomplished, as well as the ability to involve team members in an ideal of a positive future for the team; *v*) achievement motivation: coach's behaviors that promote athletes' continuous effort in tasks and established goals, assuming high expectations of achievement for all team members; *vi*) positive feedback: reinforcement and recognition behaviors of coaches towards the good performance and effort produced by athletes; *vii*) negative feedback: punishment behaviors with the intent to manage or control the inadequate behaviors assumed by athletes; *viii*) participative management: coaches' actions that promote a greater involvement of athletes in decision-making, namely in aspects related to training and competition; and *ix*) passive management: avoidance of responsibility and decision-making by the coaches, when it is necessary to solve important problems.

### Group Environment Questionnaire (GEQ; Carron, Widmeyer, & Brawley, 1985; Portuguese adaptation by Cruz & Antunes, 1997)

It includes four dimensions and fourteen items answered in a "Likert" scale: *i*) group integration-task: individual member's feelings about the similarity, closeness, and bonding within the team as a whole around the tasks to accomplish; *ii*) group integration-social: individual member's feelings about the similarity, closeness, and bonding within the team as a whole around the group as a social unit; *iii*) interpersonal attractions to the group-task: individual team member's feelings about his or her personal involvement with the group task, productivity and goals; and *iv*) interpersonal attractions to the group-social: individual team member's feelings about his or her personal acceptance and social interaction with the group;

### Satisfaction Scale (SS; Chelladurai, Imamura, Yamaguchi, Oinuma, & Miyauchi, 1988; Portuguese adaptation by Cruz & Antunes, 1997)

It includes three dimensions and fifteen items answered in a "Likert" scale: *i*) satisfaction with leadership: athletes' feelings towards their coaches' leadership style; *ii*) satisfaction with membership and team performance: feelings about team spirit and team performance; and *iii*) satisfaction with personal performance: athletes' opinions about their personal performance in training and competition and satisfaction about their fitness.

All the instruments used in this study had positive indications about factorial validity in Portuguese athletes (Cruz & Antunes, 1997) and in what concerns their application in the study of leadership, specific data can be found in Gomes (2005). Nevertheless, for this study the fidelity of the three instruments' scales was tested (Cronbach's alpha) and the alpha values ranged from 0.70 to 0.94, which can be considered very acceptable (Nunnally & Bernstein, 1994). The only exception was group integration-task ( $\alpha = 0.59$ , in swimming and  $\alpha = 0.56$ , in handball) and was therefore removed from the following analysis.



## PROCEDURE

All coaches and athletes were informed about the study's goals and the Questionnaire's administration procedures. After obtaining their agreement, one of the researchers met each team to collect the data. Data collection occurred in two different ways: either in one specific moment (e.g., before or after a training session, during the days preceding competition), or in two distinct moments (the first one to hand out the Questionnaire to the athletes, which would be taken home and filled out, and the second one to collect the Questionnaire). The coaches were not present while the athletes completed the assessment protocol.

The applied Questionnaire included a presentation letter about the research goals and the implications of the participation, making it clear that the process was voluntary. Overall, 712 questionnaires were applied, 467 of them having been received and considered valid, which indicates a high return rate (65.6%).

## RESULTS

The statistical treatment and data analysis were done using SPSS software (version 17.0 for windows).

As for the comparative analysis, the differences in leadership dimensions were tested (dependent variables) according to some of the athletes personal and sport variables (independent variables), using Multivariate Analysis of Variance (*MANOVA*). Thus, the type of sport was maintained as an independent variable in all cases and then associated with four other independent variables: sex differences, competitive level (juniors and seniors), number of years of practice with the current coach (up to one year and more than one year) and sport records (with or without records of national champions). The aim of this procedure was to highlight the differences between both sports, based on some main aspects of athletes' personal and sport characteristics. Table 1 presents the results for the interactive effects, and Table 2 presents the results for the main effects.

Starting with the first type of analysis (type of sport and sex differences), significant differences were found on leadership dimensions ( $Wilks' \Lambda = 0.94$ ,  $F(9, 453) = 3.37$ ,  $p < 0.01$ ). The univariate analysis demonstrated a significant interaction effect among the groups in training and instruction, personal respect and fairness,

vision for the future and optimism, positive feedback and participative management dimensions. In general, beyond the fact that the handball athletes assumed lower values in all of these dimensions, it must be emphasized that these differences were particularly evident in the female handball group, who showed lower values in all the domains. Besides, it must also be stressed a main effect of sports on the following variables: Social support, negative feedback, and passive management. According to the mean values, handball athletes reported less social support, and more negative feedback and passive management to their coaches. Moreover, there was a main effect of sex differences, being the men with the highest values in social support, achievement motivation, and negative feedback levels.

In the second type of comparison (type of sport and competitive level), significant differences were found on leadership dimensions ( $Wilks' \Lambda = 0.96$ ,  $F(9, 453) = 2.12$ ,  $p < 0.05$ ). The univariate analysis showed a significant interaction effect between the groups in social support, participative management and passive management dimensions. In this case, senior handball athletes considered that their coaches assumed less participative management and social support as well as more passive management. On the other hand, a main effect of the sport variable should be noted, and in this case handball athletes reported less training and instruction, personal respect and fairness, vision for the future and optimism, and positive feedback. There was also a main effect in the distinction by competitive level. In this case, junior athletes showed higher frequencies on the following behaviors: training and instruction, vision for the future and optimism, achievement motivation, and negative feedback.

In the third type of comparison (type of sport and years of practice with the current coach), no significant differences were found on leadership dimensions ( $Wilks' \Lambda = 0.99$ ,  $F(9, 443) = 0.73$ ,  $p = 0.685$ ). However, two main effects should be noted: handball athletes assessed less participative management from their coaches and athletes with more than one year of work with their coaches perceived a greater social support.

In the fourth and last type of comparison (type of sport and sport records) significant differences were found on leadership dimensions ( $Wilks' \Lambda = 0.96$ ,  $F(9, 453) = 2.37$ ,  $p < 0.05$ ). The univariate analysis demonstrated a significant interaction effect in the dimensions of vision for the future and optimism, and positive feedback. In this

Table 1

Differences on leadership dimensions: Results from the interactive analysis

MSLS: Lead dimensions	Swimming (n 0 206)			Handball			F (1,461)
	Men M (SD)	Women M (SD)	Total M (SD)	Men M (SD)	Women M (SD)	Total M (SD)	
Training and instruct.	4.05 (0.44)	3.99 (0.49)	4.02 (0.47)	3.92 (0.52)	3.52 (0.71)	3.77 (0.63)	10.95**
Personal resp. and fai.	4.07 (0.50)	4.10 (0.54)	4.09 (0.52)	3.75 (0.57)	3.36 (0.73)	3.61 (0.66)	14.17***
Social support	3.46 (0.52)	3.43 (0.54)	3.44 (0.53)	3.22 (0.59)	2.98 (0.70)	3.13 (0.64)	n.s.
Vision for the future	4.21 (0.50)	4.19 (0.53)	4.20 (0.51)	3.99 (0.53)	3.61 (0.72)	3.85 (0.63)	11.23**
Achievement motiv.	3.99 (0.47)	3.93 (0.47)	3.96 (0.47)	4.01 (0.50)	3.78 (0.65)	3.93 (0.57)	n.s.
Positive feedback	4.21 (0.48)	4.18 (0.47)	4.19 (0.48)	3.86 (0.53)	3.55 (0.69)	3.75 (0.61)	6.82**
Negative feedback	2.26 (0.81)	2.20 (0.86)	2.22 (0.83)	2.82 (0.84)	2.50 (0.87)	2.70 (0.86)	n.s.
Participative manag.	3.35 (0.58)	3.39 (0.56)	3.37 (0.57)	3.30 (0.65)	2.83 (0.72)	3.13 (0.71)	17.77***
Passive management	1.93 (0.58)	1.91 (0.56)	1.92 (0.57)	2.27 (0.64)	2.42 (0.55)	2.32 (0.61)	n.s.
	Juniors M (SD)	Seniors M (SD)	Total M (SD)	Juniors M (SD)	Seniors M (SD)	Total M (SD)	F (1,461)
Training and instruct.	4.11 (0.46)	3.94 (0.46)	4.02 (0.47)	4.07 (0.51)	3.70 (0.63)	3.77 (0.63)	n.s.
Personal resp. and fai.	4.07 (0.55)	4.11 (0.48)	4.09 (0.52)	3.74 (0.61)	3.57 (0.67)	3.61 (0.66)	n.s.
Social support	3.37 (0.51)	3.51 (0.54)	3.44 (0.53)	3.24 (0.63)	3.11 (0.64)	3.13 (0.64)	4.80*
Vision for the future	4.26 (0.51)	4.15 (0.52)	4.20 (0.51)	4.08 (0.44)	3.79 (0.66)	3.85 (0.63)	n.s.
Achievement motiv.	4.02 (0.48)	3.90 (0.45)	3.96 (0.47)	4.04 (0.51)	3.90 (0.58)	3.93 (0.57)	n.s.
Positive feedback	4.18 (0.50)	4.21 (0.45)	4.19 (0.48)	3.78 (0.54)	3.74 (0.63)	3.75 (0.61)	n.s.
Negative feedback	2.32 (0.90)	2.14 (0.76)	2.22 (0.83)	3.06 (1.00)	2.61 (0.80)	2.70 (0.86)	n.s.
Participative manag.	3.41 (0.60)	3.34 (0.53)	3.37 (0.57)	3.45 (0.64)	3.05 (0.71)	3.13 (0.71)	5.99*
Passive management	1.93 (0.65)	1.91 (0.49)	1.92 (0.57)	2.13 (0.67)	2.37 (0.59)	2.32 (0.61)	4.28*
	Until 1 year M (SD)	Until 1 year M (SD)	Total M (SD)	Until 1 year M (SD)	Until 1 year M (SD)	Total M (SD)	F (1,451)
Training and instruct.	4.05 (0.46)	4.02 (0.47)	4.02 (0.47)	3.83 (0.63)	3.75 (0.63)	3.78 (0.63)	n.s.
Personal resp. and fair.	4.07 (0.50)	4.10 (0.53)	4.09 (0.52)	3.53 (0.65)	3.64 (0.68)	3.60 (0.67)	n.s.
Social support	3.35 (0.54)	3.48 (0.53)	3.44 (0.53)	2.95 (0.64)	3.23 (0.63)	3.13 (0.65)	n.s.
Vision for the future	4.18 (0.53)	4.22 (0.52)	4.21 (0.52)	3.84 (0.65)	3.87 (0.62)	3.86 (0.63)	n.s.
Achievement motiv.	3.91 (0.50)	3.98 (0.46)	3.97 (0.47)	3.95 (0.58)	3.91 (0.57)	3.93 (0.57)	n.s.
Positive feedback	4.16 (0.44)	4.21 (0.49)	4.20 (0.48)	3.78 (0.57)	3.74 (0.63)	3.75 (0.61)	n.s.
Negative feedback	2.32 (0.82)	2.18 (0.84)	2.21 (0.84)	2.69 (0.93)	2.69 (0.83)	2.69 (0.86)	n.s.
Participative manag.	3.32 (0.62)	3.38 (0.56)	3.37 (0.57)	3.13 (0.64)	3.14 (0.75)	3.14 (0.71)	n.s.
Passive management	1.95 (0.59)	1.90 (0.57)	1.92 (0.58)	2.36 (0.61)	2.30 (0.61)	2.32 (0.61)	n.s.
	No records M (SD)	With records M (SD)	Total M (SD)	No records M (SD)	With records M (SD)	Total M (SD)	F (1,461)
Training and instruct.	4.00 (0.43)	4.07 (0.51)	4.02 (0.47)	3.77 (.63)	3.78 (0.65)	3.77 (0.63)	n.s.
Personal resp. and fair.	4.01 (0.55)	4.22 (0.44)	4.09 (0.52)	3.60 (.65)	3.65 (0.77)	3.61 (0.66)	n.s.
Social support	3.39 (0.55)	3.53 (0.49)	3.44 (0.53)	3.10 (.62)	3.33 (0.77)	3.13 (0.64)	n.s.
Vision for the future	4.20 (0.52)	4.21 (0.51)	4.20 (0.51)	3.89 (.59)	3.61 (0.80)	3.85 (0.63)	4.60*
Achievement motiv.	3.92 (0.46)	4.03 (0.47)	3.96 (0.47)	3.92 (.57)	3.98 (0.61)	3.93 (0.57)	n.s.
Positive feedback	4.11 (0.48)	4.34 (0.44)	4.19 (0.48)	3.76 (.58)	3.68 (0.77)	3.75 (0.61)	5.82*
Negative feedback	2.29 (0.83)	2.11 (0.84)	2.22 (0.83)	2.72 (.88)	2.57 (0.68)	2.70 (0.86)	n.s.
Participative manag.	3.37 (0.56)	3.38 (0.58)	3.37 (0.57)	3.15 (.70)	2.99 (0.77)	3.13 (0.71)	n.s.
Passive management	1.99 (0.56)	1.80 (0.57)	1.92 (0.57)	2.36 (.61)	2.06 (0.55)	2.32 (0.61)	n.s.

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; n.s.: not significant.

Table 2

Differences on leadership dimensions: Results from the main analysis

MSLs: Leadership dimensions	Type of sport		<i>F</i> (1,461)
	Swimming ( <i>n</i> = 206) <i>M</i> ( <i>SD</i> )	Handball ( <i>n</i> = 259) <i>M</i> ( <i>SD</i> )	
Training and instruction	4.02 (0.47)	3.77 (0.63)	6.05*
Personal respect and fairness	4.09 (0.52)	3.61 (0.66)	48.43***
Social support	3.44 (0.53)	3.13 (0.64)	37.81***
Vision for the future/optimism	4.20 (0.51)	3.85 (0.63)	19.69***
Achievement motivation	3.96 (0.47)	3.93 (0.57)	n.s.
Positive feedback	4.19 (0.48)	3.75 (0.61)	57.14***
Negative feedback	2.22 (0.83)	2.70 (0.86)	29.36***
Participative management	3.37 (0.57)	3.13 (0.71)	10.18**
Passive management	1.92 (0.57)	2.32 (0.61)	56.66***
	Sex		<i>F</i> (1,461)
	Men ( <i>n</i> = 262) <i>M</i> ( <i>SD</i> )	Women ( <i>n</i> = 203) <i>M</i> ( <i>SD</i> )	
Social support	3.31 (0.58)	3.22 (0.66)	6.18*
Achievement motivation	4.00 (0.49)	3.86 (0.57)	8.38**
Negative feedback	2.61 (0.87)	2.34 (0.87)	5.48*
	Competitive level		<i>F</i> (1,461)
	Juniors ( <i>n</i> = 154) <i>M</i> ( <i>SD</i> )	Seniors ( <i>n</i> = 311) <i>M</i> ( <i>SD</i> )	
Training and instruction	4.10 (0.48)	3.78 (0.59)	23.12***
Vision for the future/optimism	4.20 (0.49)	3.91 (0.64)	11.13**
Achievement motivation	4.03 (0.49)	3.90 (0.54)	6.13*
Negative feedback	2.57 (1.00)	2.45 (0.82)	13.23***
	Years of practice with the current coach		<i>F</i> (1,451)
	Until 1 year ( <i>n</i> = 138) <i>M</i> ( <i>SD</i> )	More than 1 year ( <i>n</i> = 317) <i>M</i> ( <i>SD</i> )	
Social support	3.10 (0.63)	3.34 (0.60)	10.38**
	Sport records		<i>F</i> (1,461)
	No records ( <i>n</i> = 355) <i>M</i> ( <i>SD</i> )	With records ( <i>n</i> = 110) <i>M</i> ( <i>SD</i> )	
Social support	3.21 (0.61)	3.47 (0.59)	6.88**
Passive management	2.23 (0.62)	1.87 (0.57)	12.68***

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; n.s.: not significant.

case, it should be pointed out that handball athletes who detain national records presented lower scores on these dimensions towards their coaches. On the other hand, a main effect was found on sport records, where athletes without national records had more passive management and less social support from their coaches.

At another level, the differences in satisfaction and cohesion between swimming athletes and handball athletes were observed. In this case, using “t-tests” for independent-samples, significant differences between the groups arose, being the swimming athletes who assumed higher cohesion and satisfaction in all the assessed dimen-

sions (as a reminder, the group integration-task was not included in the analysis due to its registered alpha values) (see Table 3).

In the last type of analysis, it was observed which dimensions of leadership could better explain the athletes’ satisfaction with leadership. For this, a multiple regression analysis was applied (“stepwise” method), using the nine dimensions of the MSLS as predictors and as a variable to predict the athletes’ satisfaction with leadership from the Satisfaction Scale (see Table 4).

In swimming, the predictor variables were personal respect and fairness, training and instruction, and partici-

Table 3

Differences between athletes on cohesion and satisfaction dimensions

	Swimming		Handball		<i>d.f.</i>	<i>t</i>
	<i>M (SD)</i>	<i>n</i>	<i>M (SD)</i>	<i>n</i>		
<b>GEQ: Cohesion</b>						
Group integration – Social	7.14 (1.70)	205	5.89 (1.88)	256	459	7.38***
Interpersonal attraction – Task	7.87 (1.23)	205	6.60 (1.62)	259	461	9.57***
Interpersonal attraction – Social	8.06 (1.10)	204	7.15 (1.48)	255	455	7.60***
<b>SS: Satisfaction</b>						
Satisfaction with leadership	5.88 (0.98)	203	5.07 (1.18)	252	452	7.97***
Satisfaction with membership	5.90 (1.04)	202	5.27 (1.02)	255	455	6.50***
Satisf. with individual perform.	4.77 (1.57)	204	4.42 (1.32)	257	459	2.53*

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Table 4

Summary of the multiple regression analysis: Athletes’ satisfaction with leadership

Sport: Swimming						
Observed Variable	Predictor Variables	$R^2$	$R^{2\text{adjust.}}$	Beta	<i>t</i>	<i>F</i>
Athletes’ satisfaction with leadership	Personal respect. / fairn.	0.270	0.266	0.347	4.94***	73.84***
	Training and instruction	0.319	0.312	0.218	3.04**	46.58***
	Participative management	0.334	0.324	0.139	2.10*	33.05***
Sport: Handball						
Observed Variable	Predictor Variables	$R^2$	$R^{2\text{adjust.}}$	Beta	<i>t</i>	<i>F</i>
Athletes’ satisfaction with leadership	Training and instruction	0.516	0.514	0.271	4.65***	266.74***
	Personal respect. / fairn.	0.641	0.638	0.311	6.12***	222.08***
	Vision for the future	0.666	0.662	0.144	2.96**	164.72***
	Achievement motivation	0.677	0.672	0.121	2.31*	129.33***
	Social support	0.685	0.679	0.135	3.15**	107.13***
	Passive management	0.694	0.686	-0.110	-2.57**	92.42***

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .



participative management. The final model explained 33.4% of the variance.

Concerning handball, a greater capacity to predict athletes' satisfaction with leadership was observed (69.4% of the total variance). In this case, the predictor variables were training and instruction, personal respect and fairness, vision for the future and optimism, achievement motivation, social support, and passive management.

## DISCUSSION

One of the main aspects of the results was the perception of leadership styles by the athletes from both sports. Here, except in the achievement motivation dimension, swimming athletes tended to evaluate their coaches more positively (e.g., more training and instruction, personal respect and fairness, social support, vision for the future and optimism, positive feedback, and participative management, and inversely, less negative feedback and passive management). On the other hand, they also showed higher levels of cohesion and satisfaction. These results seem to question some of the principles listed by House and Mitchell (1974) and Chelladurai (1980), as they suggest that the efficacy of leadership behaviors depend on the variability of the task to realize and on the level of cooperation needed to accomplish that task. So, if the task changes significantly and coordination is essential, one would suppose more directive and task behaviors from the coaches. In our case, handball should be considered an open sport, as athletes compete in a constantly changing context, where interdependency between players is critical to achieve sporting success. Therefore, it would be expected that coaches from this sport assume more structured styles of leadership when compared to swimming coaches (higher frequency of directive behaviors, technical instruction, informative feedback, etc.). In this last case, swimming could be considered a closed sport, because it does not occur in such a changing context and interdependence between team mates is not so important. According to the results of this study, a more positive pattern of leadership emerges in swimming, where coaches seem to intervene more on their teams and athletes. In other words, both the technical and personal dimensions of coaches' actions were more evident in swimming, and these differences cannot be explained by the variability and interdependence inherent to this sport. On the other

hand, the results showed that these differences were not only evident in leadership behaviors perception, but also in the levels of cohesion and satisfaction, which were higher within swimming teams.

The comparative analysis between groups of athletes highlights several aspects.

Starting with the differences between men and women, it was observed a more positive pattern of assessment of leadership by men, as they attributed higher social support and achievement motivation to their coaches. The only exception was related to negative feedback, where the values were higher in men than in women. At the same time, it was evident that female handball teams had a more unfavorable pattern of assessment of their coaches, pointing out to their coach's lower training and instruction, personal respect and fairness, vision for the future and optimism, positive feedback, and participative management. Research on this topic is mainly focused on what athletes (men and women) prefer in terms of leadership styles, than on the analysis of the actual and effective coaches' actions (Chelladurai & Saleh, 1978; Schliesman, Beitel, & DeSensi, 1994). Nevertheless, some studies emphasize the fact that women, compared to men, prefer more people-oriented behaviors by their coaches (e.g., democratic behavior and social support). In our case, these are precisely the dimensions that are less perceived by women, especially by those who practice handball. Because of this, supposedly the pattern of the coaches' actions may not meet the desires of this group of athletes.

Concerning the competitive level, the most considerable result is the fact that younger athletes (juniors) assess their coaches more positively, attributing to them higher training and instruction, vision for the future and optimism, and achievement motivation. Once again, the only exception refers to negative feedback, as these athletes pointed out higher prevalence of this behavior to their coaches. In addition, it was also clear that these differences were particularly evident in senior handball athletes, who reported less social support by their coaches and more negative styles of decision-making. Some research data has stressed the difference between athletes' competitive levels, indicating that with the increasing of age, athletes tend to prefer more social support and less positive feedback by their coaches, being this last behavior more preferred by younger athletes (Chelladurai & Carron, 1983; Terry, 1984). Regarding the behaviors oriented to the task (e.g., training and instruction), the results are less clear, but

they represent one of the most preferred dimensions in all ages (Riemer, 2007). Curiously, the comparison that was made concerning the working time with the current coach brought to evidence that more years of working together strengthen their personal relationship, since athletes with more than one year with the same coach described higher social support. This result seems to reinforce the idea that working time may be a factor that promotes more positive personal relationships.

In the case of sport records, four leadership dimensions should be underlined. On one hand, social support was lower in athletes without sport records who, inversely, attributed higher passive management to their coaches. On the other hand, even though the values of vision for the future and optimism and positive feedback were higher for athletes with sport records in swimming, curiously the same does not occur for handball athletes, who described lower levels of these behaviors by their coaches. Considering these results, two fundamental ideas must be stressed. First, the achievement of sporting success seems to promote more positive perceptions by the athletes towards their coaches, confirming what has been demonstrated in literature throughout the time (see Antunes & Cruz, 1997; Gomes & Cruz, 2006; Horn, 2008; Leitão, 1999; Riemer & Chelladurai, 1995). Second, maybe unexpectedly, this indication cannot be generalized to all situations because, in the case of handball athletes, with sport records, precisely the opposite occurred. This result reinforces one of the main conclusions of this study, which is the impact of the type of sport on the assessment made by the athletes concerning their coaches.

Finally, in the explanation of athletes' satisfaction with leadership (regression analysis) two fundamental aspects should be pointed out. First, the coaches' behaviors which best explain athletes' satisfactions were fundamentally related to the combination of actions oriented to the task (training and instruction) and to the relationship (personal respect and fairness). Second, what changes is the order of the importance given by the athletes from both sports to each dimension, being technical leadership more evident in handball and relational leadership more evident in swimming. In general, research concerning this issue has remarked some of these behaviors in the prediction of the athletes' satisfaction. For instance, Horne and Carron (1985), in a study with coaches from Canada, pointed out the dimensions of training and instruction, positive feedback and social support, while Schliesman (1987) pointed

out the democratic and social support behaviors as the best predictors of athletes' satisfaction with leadership.

In summary, the data from this study suggests the tendency of swimming athletes to assess their coaches more positively, which brings benefits in terms of cohesion and satisfaction. Accordingly, it became obvious that the comprehension of leadership will benefit if one attends to some personal and sport characteristics of the athletes. Secondly, the understanding of coaches' actions seem to benefit with the integration of some "traditional" dimensions of sport leadership (e.g., training and instruction, social support, positive feedback, participative management) (see Chelladurai, 1993, 2007) as well as the inclusion of some "new" areas suggested by the charismatic and transformational approaches (e.g., vision for the future and optimism, personal respect and fairness, achievement motivation) (Bass & Avolio, 1997; Burns, 1978; Conger & Kanungo, 1987; House & Shamir, 1993; Sashkin, 1988). Besides, the incorporation of "negative dimensions" of leadership on the Multidimensional Scale of Leadership in Sport (e.g., negative feedback and passive management) can also increase the knowledge about the impact of ineffective dimensions of leadership on the psychological and emotional well-being of athletes and on the team's performance. Finally, coaches can produce a meaningful impact on the athletes' satisfaction towards their leadership if they value the technical and personal dimensions of their actions, but this aspect should take into consideration the specific sport in analysis.

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