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**Leadership, satisfaction and compatibility with the coach in volleyball teams: A study before and after the playoffs**

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## **Liderança, satisfação e compatibilidade com o treinador em equipas de voleibol: Um estudo antes e após os *playoffs***

### **Resumo**

**Introdução:** Em nenhum outro contexto encontramos tantos indivíduos que se sujeitam à autoridade dos seus treinadores, como acontece no domínio desportivo (Chelladurai, 1984; Cruz & Gomes, 1996). Assim, o exercício da liderança pode ser entendido como um processo comportamental que visa influenciar indivíduos e grupos, tendo em vista objectivos estabelecidos (Barrow, 1977). Desta forma, o estudo deste tema tem vindo a ser desenvolvido no sentido de observar quais as acções dos treinadores e os estilos de liderança que mais se relacionam com o desempenho desportivo, bem como com os sentimentos de bem-estar psicológico e emocional dos atletas (Horn, 2008). Neste sentido, o objectivo deste trabalho foi compreender que dimensões (resultados *versus* as percepções de obtenção dos objectivos e das acções dos treinadores) explicam a satisfação e a compatibilidade dos atletas com os seus treinadores. Assim, analisámos a) as diferenças entre as equipas que ganharam o campeonato nacional e a taça de Portugal *versus* as outras equipas, ao nível da liderança, satisfação e compatibilidade antes e após os *playoffs*, b) as diferenças entre ambos os grupos de equipas relativamente aos seus objectivos de rendimento (colectivos e individuais) após os *playoffs*, c) as diferenças entre os dois momentos, em cada grupo de equipas nas dimensões mencionadas e d) os preditores da satisfação e da compatibilidade dos atletas com os seus treinadores, através das dimensões da liderança, controlando variáveis pessoais e desportivas. Paralelamente, inclui o contributo do modelo multidimensional de liderança (Chelladurai, 1978, 1990, 1993) e as recentes abordagens da psicologia social e organizacional na compreensão da liderança: o modelo carismático e transformacional (Bass, 1985; Bass, 1998; Bass & Avolio, 1993; Conger & Kanungo, 1987; House, 1977).

**Método:** O presente estudo envolveu 66 atletas seniores do sexo masculino da primeira divisão portuguesa de voleibol, fazendo parte de seis equipas que se qualificaram para os *playoffs*. Atendendo ao objectivo deste trabalho, os atletas foram divididos em dois grupos: o grupo das equipas vencedoras (compreendendo o campeão nacional e o vencedor da taça de Portugal) e o grupo das outras equipas que não conseguiu vencer nenhum título. O grupo das equipas vencedoras era constituído por 21 atletas (31.8%) e o grupo das outras equipas era constituído por 45 atletas (68.2%), com idades compreendidas entre os 18 e os 38 anos ( $M=27.19$ ,  $DP=5.04$ ) e entre os 17 e os 34 anos ( $M=25.02$ ,  $DP=4.17$ ), respectivamente. Foi aplicado um protocolo contendo as seguintes medidas: Escala Multidimensional de Liderança no Desporto-2 (Gomes, 2008), Questionário de Satisfação em Atletas (Riemer & Chelladurai, 1998), Medida de Compatibilidade Treinador-Atleta (Gomes, 2008) e Escala de Avaliação da Obtenção dos Objectivos de Rendimento (Gomes, 2008).

**Resultados:** o tratamento dos dados foi efectuado através de análises univariadas e multivariadas. Assim, três resultados devem ser salientados: 1) após os *playoffs*, o grupo das equipas vencedoras avaliou mais positivamente os seus treinadores ao nível da gestão partilhada do poder e dos objectivos colectivos e individuais, comparativamente com o grupo das outras equipas, 2) o grupo das equipas vencedoras perceberam mais *feedback* positivo, enquanto que o grupo das outras equipas percebeu menos treino e instrução, respeito e tratamento justo, motivação para a realização, *feedback* positivo e satisfação com a estratégia, após os *play-off* e 3) a satisfação e a compatibilidade com os treinadores foi explicada pela percepção da concretização dos objectivos individuais, respeito e tratamento justo e *feedback* positivo.

**Conclusão:** Os resultados deste estudo permitiram concluir que os preditores da eficácia da liderança dependem da percepção dos atletas sobre o seu rendimento individual e sobre as acções dos treinadores.

## **Leadership, satisfaction and compatibility with the coach in volleyball teams: A study before and after the playoffs**

### **Abstract**

**Introduction:** In no other context we find so many individuals who submit to the authority of their coaches, as in the sporting domain (Chelladurai, 1984; Cruz & Gomes, 1996). Thus, the exercise of leadership can be understood as the behavior process of influencing individuals and groups towards set goals (Barrow, 1977). By this mean, the study of this subject has been increasing with the aim of observing coaches' actions and leadership styles that are related to sporting performance, as so with the athletes' feelings of psychological and emotional well-being (Horn, 2008). In this sense, the goal of this work was to comprehend which dimensions (sport records versus perceptions of goals achievement and coaches' actions) explain the satisfaction and compatibility of the athletes with their coaches. Hence, we analyzed a) the differences between teams who won the championship and the Portuguese cup versus the other teams, in leadership, satisfaction and compatibility before and after the playoffs, b) the differences between both groups of teams regarding their performance goals (team and individual) in the end of the season, c) the differences between the two moments, in each group of teams, in the mentioned dimensions and d) the predictors of athletes' satisfaction and compatibility with their coaches, through the leadership dimensions, controlling personal and sport variables. At same time, it includes the contribute of the multidimensional model of leadership (Chelladurai, 1978, 1990, 1993) and the recent approaches of social and organizational psychology in the comprehension of leadership: the charismatic and transformational model (Bass, 1985; Bass, 1998; Bass & Avolio, 1993; Conger & Kanungo, 1987; House, 1977).

**Method:** The present study involved 66 senior male athletes from the first Portuguese national volleyball division, included in six teams that qualified to the playoffs. For the purpose of this work, the athletes were divided in two groups: the winner teams (comprised the winner of the national title and the winner of the volleyball cup) and the other teams that didn't accomplish any title. The winner teams were constituted by 21 athletes (31.8%) and the other teams were constituted by 45 athletes (68.2%), with ages ranged from 18 to 38 years old ( $M=27.19$ ,  $SD=5.04$ ) and from 17 to 34 years old ( $M=25.02$ ,  $SD=4.17$ ), respectively. It was applied a protocol containing the following measures: Multidimensional Scale of Leadership in Sport (Gomes, 2008); Athlete Satisfaction Questionnaire (Riemer & Chelladurai, 1998), Compatibility Coach-Athlete Measure (Gomes, 2008) and Performance Goal Incongruence Scale (Gomes, 2008).

**Results:** The data treatment was done through univariate and multivariate analysis. Thus, three results must be highlighted: 1) after the playoffs the winner teams evaluated more positively their coaches on participative management and on team and individual goals, comparatively to the other teams, 2) winner teams perceived more positive feedback, while the other teams, perceived less training and instruction, personal respect and fairness, achievement motivation, positive feedback and satisfaction with the strategy, after the playoffs and 3) the satisfaction and compatibility with coaches were explained by perception of individual goals achievement, personal respect and fairness and positive feedback.

**Conclusion:** The results of this study enabled to conclude that the predictors of the leadership efficacy depend on the athletes' perceptions about their personal performance and the coaches' actions.

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## **Theoretical review**

## **Introduction**

Although “there are almost as many different definitions of leadership as there are persons who have attempted to define the concept” (Bass, 1990, p. 11), it is broadly considered as “the behavior process of influencing individuals and groups towards set goals” (Barrow, 1977, p. 232). This definition comprises many concepts of the leaders’ behavior, as the goals they set for themselves and for their followers, the decision-making process, the types of learning activities that they employ in practice situations, the type of communication they use, the strategies they employ to motivate and the relationship they establish with collaborators (Horn, 2008). Additionally, for Stogdill (1974) leadership must satisfy three conditions: the presence of a group of one or more persons, a common task and a clear distinction of roles and responsibilities. On the other hand, Schein (1970) highlights the existence of a “psychological contract” between the subordinates, who expect benefits for following the ideas presented by the decision-makers and their leaders.

### **Conceptual approaches of leadership**

The approaches in the study of leadership can be divided on traits or on personality features, on the observation of the leader’s behaviors while performing his role and on situational variables (Vecchio, 1995). Regarding the first approach, in the decade of 1920, researchers attempted to understand personality traits common to great business and industrial leaders. For this, they considered some stable traits as confidence, assertiveness and intelligence. The studies supported the “trait theory”, declaring that the leaders had certain innate features which conferred them success independently of the situation (Weinberg & Gould, 2007). Thus, the strategy was identifying the personality features or traits which were common to great social, political and managerial leaders (Cruz & Gomes, 1996). Nevertheless, in the decade of 1940 the traits linked to leaders were diverse and when compared each other, they did not always match and sometimes they were contradictive (Gomes, 2005).

As a result, the first studies based on the behavioral approach took place in the end of the 1940`s. The researchers intended to find the observable skills in the leaders` performance in the diverse contexts of action (Leonard, 2003). As referred by Weinberg and Gould (2007), the behaviorists advocated, opposing the defenders of the trait theory, that leadership could be learnt and was not born with the individual. Being so, the fatalist perspective of “you are born or not born a leader” was abandoned. This paradigm, when compared with the previous one, had less problems involved, knowing

it would be easier to define behavior patterns than personality structures (Gomes, 2005). In this manner, these behavior patterns were clustered in taxonomies for further interventions (practice implications), and certain behaviors were related with efficacy criteria (e.g., workers' attitude toward their bosses) (Muchinsky, 1999). Thus, these ideas were explored in two studies: the studies of the University of Michigan and the studies of the University of Ohio. The first one, analyzed the impact that leader's behavior had in small groups, referring to Second World War period, having defined two action dimensions: productivity oriented (the job's technical aspects) and social interaction oriented (importance of the human aspects and relationship with the collaborators) (Bowers & Seashore, 1966). The results concerning the leaders' combination of these dimensions were inconclusive, taking into account they did not consider others factors as the context and moment where the leadership occurred (Yukl, 1998).

Regarding the studies of the University of Ohio, the researchers attempted to identify a set of behaviors which defined the leaders' actions through the instruments "Leadership Opinion Questionnaire"- LOQ (assesses the leader's perception concerning his leadership) and "Leadership Behavior Description Questionnaire"- LBDQ (assesses the subordinates' perception concerning the leadership) (Hemphill & Coons, 1957). The results originated two categories: the organization (task related behaviors) and consideration (behaviors related to people's well being) (Gomes, 2005).

Nevertheless, these theories were contested in the decade of 1970 due to their incongruities (e.g., the personality traits and behaviors vary according to the context). Thus, it emerged other theories called situational or interactional, which advocated that beyond the traits and the behaviors, the leadership's efficacy also depended on other situational factors (e.g., type and nature of the tasks, work environment) (Cruz & Gomes, 1996). In this manner, this new paradigm can be understood in two different ways: on one hand, the understanding of the external factors which influence leadership, and on the other, identifying the situational aspects which moderate the relationship between the personality traits and the behaviors of efficient leaderships (Yukl, 1989). For example, a coach who was successful in the past but presently has no success at a new team, it does not seem reasonable to think his personality or his behaviors have changed so dramatically, and that these factors are responsible for his present failure.

Consequently, the studies intended to assess the variables which limit the leadership efficacy and identify the most suitable leadership styles for each context (Rego, 1998). Regarding the first issue, several factors which can influence the leadership styles can be identified, as the case of collaborators' characteristics (e.g.,



competence level, cohesion and motivation), type of task (diversity and autonomy of each worker), meet deadlines to attain the planned goals, organizational structure and the context of all these variables (e.g., number of companies which provide the same service and competition level) (Dipboye, Smith, & Howell, 1994).

Concerning the second issue, three models should be highlighted, with the goal of conceptualizing the leadership styles most appropriate to the situational demands: a) the Fiedler contingency model (1967, 1971), which gives more relevance to the relationship between the leadership behaviors and the group's working environment, b) the Hersey-Blanchard situational leadership model (1969), which prioritizes the adaptation of the leaders' behavior to the collaborators development and c) the Vroom and Yetton's normative model of leadership (1973) which advocates the congruence between decision-making styles and the task difficulty level.

These interactional approaches had also implications on the conceptualization of efficient leadership in sports. Thus, according to Weinberg and Gould (2007): 1) no one set of characteristics or traits ensures successful leadership, 2) effective leadership styles or behaviors should adjust to the specific setting and 3) leadership styles can be changed, fitting the specific situation.

This last implication reminds the importance of the contingency model and the distinction between relationship oriented leadership and task oriented leadership. While the first prioritizes productivity, the relationship oriented leaders give more importance to the attraction between the members of the group itself. In this manner, according to the coaches' style, a team can be socially cohesive and not be cohesive concerning the competition goals. Fiedler (1967) adds that the task oriented leader seems to be more efficient in very favorable and very unfavorable situations, while the relationship oriented leader seems to be more efficient in moderately difficult situations.

In the beginning of the decade of 1980, these theories were not consensual, although their enormous contribution to the explanation of the leadership phenomenon. In fact, their results were dissatisfied, inside the own models and in the comparison of the several approaches (Gomes & Cruz, 2007).

### **Charismatic and Transformational approach**

The charismatic leadership (Bass, 1985; Conger & Kanungo, 1987; House, 1977) and transactional and transformational model (Bass, 1998; Bass & Avolio, 1993) arose as an attempt to respond to the existing discontent, integrating proposals from all theories, since the personality traits (Bryman, 1992).

Concerning the first model, the study of the leaders' features allowed the discovery of one common characteristic to great leaders, responsible for significant changes in our history: the charisma (Weber, 1964, 1968). According to the author, it's something peculiar which helps us understand the success and the impact of great personalities. Therefore, charisma appears when a leader, facing a difficult situation, can gather a group of individuals who believe in his/her abilities and guides them through the best solution for each problem. He/her is seen as a visionary and inspiring person with fundamental values and emerges in contexts of turbulence and change (Gomes, 2005).

Afterward, Fiol (1999) gathered these ideas in a theory called neo-charismatic leadership. This approach was demonstrated in comparative studies concerning charismatic and non charismatic leaders, where the charismatic leaders' obtained higher performance levels regarding their followers and the organizational results (Howell & Frost, 1989).

Thus, in one of the first attempts to integrate all these ideas in a single paradigm, House (1977) related the charismatic leader's actions with the situational variables and the personality traits. Regarding the behaviors, in order to exist a greater perception of charisma in the followers, the leader must be an example (in values and principles), spread an image of success and self-confidence, have expectations of accomplishment for his/her team and increase the group's confidence in order to overcome the adversities. As to the relationship with the context, this type of leadership seems to arise and be more efficient in difficult and crisis situations for the organizations. Finally, in what concerns the personality traits, these leaders were considered people with high self-confidence, high moral principles and a strong ability to influence the thoughts of other people. Moreover, in a more difficult situation, both the personality traits and their actions seem to be more adaptable, promoting a more efficient assessment of leaders' charisma through their followers.

More recently, during the decade of 1990 the model was changed, being more based on organizational aspects and on the result levels of efficiency (Shamir, House & Arthur, 1993). Thus, the authors advocated as a key idea, the self concept of the subordinates. This is what best distinguishes this leadership style: the ability to establish a relationship between the identification of the followers and the goals of the organization. Despite this contribution, this notion didn't seem to be supported in the explanation of the emergence and success of these leaders (Shamir, Zakay, Breinin & Popper, 1998).

Thus, Conger and Kanungo (1987, 1988) developed a behavioral and attributional model of leadership. For the authors, the charismatic leaders presented

five characteristics: 1) strategic vision and articulation: describes a vision which achieves a proposed goal and promises a better future, 2) personal risk: the leader assumes risks and is ready for unsuccessful which may bring them self sacrifice, 3) sensitivity to the environment: assess the contextual matters, adapting the resources for the necessary change, 4) sensitivity to members needs: the leader is alert and understand the abilities of the subordinates and is sensitive to their needs and feelings and 5) unconventional behaviors: the leader adopts unconventional new actions, not according to the pre-established rules (Conger & Kanungo, 1998). Thus, this proposal defines charisma as an observable dimension (e.g., autocratic and democratic behaviors) and as a process of influence which depends on the followers attributions. Hence, the authors comprehend leadership as a process that involves the development of the organization's members toward a vision assumed by the leader. In this case, the concept of "vision" is a "mental image", which is passed on from the leaders to his followers, containing the organizational goals (Conger, 1989). For such, the implementation of this identification must be developed by the leader with his followers in three steps: a context observation phase (in which he/she can explore low incomes, analyze eventual intervention areas and the subordinates' expectations), a goal setting phase, according to results of that assessment (through a credible image) and a last phase where the course of action is planned (promote a feeling of optimism concerning the goal attainment).

In this manner, these three steps should create a baseline to assess the changes produced by the leader on the followers and in the organization. Conger and Kanungo (1998) defined as leader's efficacy the productivity, since he/she enters the organization, and the changes in the collaborators' values, attitudes and behaviors. According to these authors, this last criteria is more reliable to assess his/her results, for they are not dependent on market fluctuations.

Finally, in the transactional and transformational model, Bass (1985) proposed a division between these notions. Afterward, it was added a new form of conceptual distinction, the "laissez-faire" style (Bass, 1998; Bass & Avolio, 1993). Thus, in the first case, the leader supports his/her action on the legitimacy to exercise power, emphasizing rules and established norms compliance. While, through reinforcements and punishments, he highlights the attainment of the proposed goals. Then, he/she monitors how the tasks are being developed.

In the transformational leadership, the leader has the skill to formulate a "vision" for the organization that is acknowledged by all as worthier of support and trust. In other words, he/she has "the ability to inspire followers to go beyond expected levels of commitment and contribution. This inspirational process relies on emphasizing task-

related values and a strong commitment to a mission. Mission statements communicate the transformational leader's long-term vision which is rooted in common-shared values" (Burns, 1978, p. 44).

Therefore, five dimensions in this area were proposed: 1) charisma: an attribution that results in followers attaching themselves emotionally to the leader, 2) inspiration: the leader establishes a positive vision for the future using emotional arguments and displaying optimism and enthusiasm, being these last, factors which transmit hope towards the future and a common goal, 3) idealized influence: the leader demonstrates a pattern of behaviors which serve as example, such as self sacrifice in name of the group and the display of high ethical patterns, 4) individualized consideration: refers to motivation, appreciation, the teaching and power transference, existing a concern with the needs of self and professional realization shown by the followers and 5) intellectual stimulation: promoted by the leader, has a main goal to lead his/her followers to question the adopted principles, encouraging them to be innovative and creative in the problem solving process of the organizational problems as a whole (Bass, 1998; Bass & Avolio, 1993).

Lastly, in the "laissez-faire" style, there is a delay of the decision making, in a working environment where there is no goal setting nor action plans. Thus, this behavior cannot be considered a leadership style, because it is the denial of leadership (Bass & Avolio, 1999).

## **Leadership in sports**

In no other context we find so many individuals who submit to the authority of their coaches, as in the sporting domain (Chelladurai, 1984; Cruz & Gomes, 1996). In sports, the study of leadership has been focused on identifying the coaches' areas of intervention, adding other variables as performance, decision-making, motivation, satisfaction, compatibility, etc. (Gomes & Cruz, 2006).

One approach that made an effort to study this issue in youth sports was the mediational model (Smith & Smoll, 1997; Smith, Smoll, & Curtis, 1978; Smoll & Smith, 1989). According to the authors, the model consists of the interaction of four central elements: the coach's behaviors, players' perceptions and recollections of those behaviors, players' evaluative reactions and the situational and individual difference variables that influence the first three items. Therefore, coach behaviors result in perceptions and memories in the minds of young athletes, which, in turn, affect their emotional reactions to their experiences and, ultimately, the psychosocial impact of their support experience (Smith & Smoll, 1996). Thus, as referred by Smoll and Smith

(1989), “a truly comprehensive model of leadership requires that consideration be given not only to situational factors and overt behaviors, but also the cognitive processes and individual difference variables which mediate relationships between antecedents, leader behaviors, and outcomes.” (p. 1532). In this case, the emphasis is placed on the player`s memories and the assessment of the coach`s behaviors (Chelladurai, 2007). Thus, the main elements are affected, direct or indirectly, by three types of factors: 1) variables related to the coach`s individual differences (e.g., motivations, goals, sex, intentions, perceived norms, perceptions regarding his/her athletes` motivations, etc.), 2) variables related to the athlete`s individual differences (e.g., sex, age, perception of the manager`s norms, motivation, competitive anxiety, self esteem) and 3) situational factors (e.g., the nature of the sport, competitive level, training or games, previous successes and failures, team`s cohesion).

Hence, to measure leadership behaviors, the authors developed a system called “Coaching Behavior Assessment System” (CBAS), where they could be encoded, registered during practices and games. As opposed to the self report instruments, this system (observation grid) constitutes a tool to observe and to measure leadership behaviors in natural contexts (Smith & Smoll, 1997). This method was developed through the observation and recording of the behaviors of basketball, baseball and American football coaches. Afterward, the most important behaviors were labeled (Cruz *et al.*, 2001). In this manner, the CBAS assesses twelve dimensions of the coaches` behaviors divided into two categories: reactive behaviors and spontaneous behaviors. The first ones refer to the coaches` actions towards performance, effort, errors and inadequate behaviors presented by the athletes. Regarding the spontaneous behaviors, it comprises the athletes` actions related and/or important to the competition. Moreover, this instrument becomes more complete, for it presents two self-report versions (one for the coach, another for the athletes) which assess the athletes` perceptions towards the coach`s leadership behaviors and the coach`s perception towards his/her own behaviors.

Trough this measure, it was developed a cognitive-behavioral intervention which has been in expansion since the decade of 1980, with the goal of supporting managers of youth and sportive schooling athletes. The program`s aims are to promote four specific coach`s behaviors: a) reinforcement (both by effort and good performance), b) encouragement (given to a player following a mistake), c) mistake-contingent technical (given in an encouraging manner), d) technical instructions (spontaneous instructions concerning technical aspects of the sport) and decrease four undesirable behaviors: a) nonreinforcement (not responding to good performances or efforts), b) punishment (verbal or non verbal), punitive technical instruction (instruction

given in a sarcastic or unpleasant manner) and behaviors to keeping control (Smith & Smoll, 1997).

Another model, widely known that attempts to comprehend the sport leadership phenomenon, it's the multidimensional model of leadership (Chelladurai, 1978, 1990, 1993). According to the author, an efficient leadership comports the congruence between three types of behaviors presented by the coach: 1) the requirements and constraints placed on leader behavior (e.g., team goals, the team or group's norms and values), 2) the behavior preferred by the members of the group (e.g., according to the athletes' personality features, each athlete expects that the coach behaves in a certain manner) and 3) the leader's actual behavior, influenced by his/her personal characteristics, situational demands and by the group's preferred behaviors (e.g., senior professional athletes prefer different behaviors than younger athletes). Additionally, the leader is also influenced by the knowledge of the athletes' leadership preferences and by the restrictions of context. In other words, "the actual behavior will also be shaped by the required behavior and the preferred behavior. That is, the leader will be cognizant of the prescriptions and proscriptions imposed by the situation. At the same time, the leader will be attuned to the preferences of the members of his or her group" (Chelladurai, 2007, p. 118). For example, a coach who knows that his starting quarterback prefers to call his own plays is likely to give more latitude to this athlete to do it, and allow him to participate more in the development of the week's game plan (Riemer, 2007).

To apply this model's principles, Chelladurai and Saleh (1978, 1980) developed an assessment instrument, the "Leadership Scale for Sports" (LSS) which evaluates five different dimensions of the leader's behavior: training and instruction, democratic behavior, autocratic behavior, social support and positive feedback. Weinberg and Gould (2007) summarized the most relevant research conclusions based on the multidimensional model of leadership: a) as the athletes grow old, becoming more mature, they prefer more autocratic behaviors presented by the coach and their desire and need for social support increases, b) while male athletes prefer training and instruction behaviors and a more autocratic leadership style, the female athletes prefer a more democratic leadership style, which allows them to take part in the decision-making process, c) the athletes with higher levels of performance and success seem to prefer more training and instruction behaviors, a more democratic leadership style and need more positive feedback given by the coach, when compared with less successful athletes and d) team sports and highly interactive sports athletes prefer a more autocratic training style than individual sports athletes.

## Evaluating the efficacy of leadership

The study of the topic concerning leaders' efficiency and impact in collaborators has focused itself on the perceptions of the collaborators instead of the observation of the characteristics of leaders who lead winning organizations (Kaiser, Hogan, & Craig, 2008). According to these authors, this fact occurs because in psychological research it is easier to collect the subordinates' perceptions than to assess the organizations' performance with certainty. Thus, Kaiser et al., (2008) advocated a leadership assessment through the teams' performance and the organizational results. Consequently, a measure which must be applied is called "Did the team win?" because it reflects the result of the team's competition with other organizations. Therefore, productivity, financial performance and turnover, when combined, reflect the group or organizational performance more efficiently (Kaplan & Norton, 1996).

In sports, this analysis must be focused on the coach, as he or she is "the most important person in determining the quality and success of an athlete's sport experience" (Williams *et al.*, 2003, p. 16). In other words, the way in which they interact determines results as satisfaction and performance (Chelladurai, 1993; Jowett & Poczwardowski, 2007). Thus, for Courneya e Chelladurai (1991) the measures used to assess the sporting performance as losing/winning are contaminated, for they do not consider variables as the opponent's performance, the coach's technical instructions and referee errors. Therefore, "wins and losses are unreliable measures of the effectiveness of an athletic team and its efforts" (Riemer & Chelladurai, 1998, p. 128). Wherefore, to overcome this problem two research options can be assumed: the athletes' perceptions concerning their own performance and their team's performance (Chelladurai, 1984; Horne & Carron, 1985) and their perceptions regarding their satisfaction toward their individual and group performance. In other words, data of the perceived performance and perceived satisfaction should be collected.

In brief, these two proposals concerning the leadership phenomenon are different: on one hand, the leadership's impact is reflected through the results of the group in terms of productivity, clients' satisfaction, etc. (Kaiser et al., 2008), on the other hand the assessment of efficacy's leadership is observed by the impact in the athletes' personal and sport experiences (e.g., satisfaction, cohesion, well-being) (Chelladurai, 1984, Riemer & Chelladurai, 1998).

## **Empirical study**



## Introduction

The study of leadership has been a subject of a wide interest and it is estimated that more than 3500 studies were published in this topic (Stogdill, 1972). In this sense, leadership can be understood as a solution to combine the effort of everyone, making it possible for success to be achieved, through a process of influence and group coordination (Hogan & Keiser, 2005).

In sports, this influence is assured by the coach, who plays several roles as “teachers”, “judges”, “friends”, “parents”, “scientists”, “managers”, “actors”, “politicians”, “students” (Crespo & Balaguer, 1994). Thus, despite of the possibility of existing some similarities between a coach and a manager (e.g., human resource selection), Weinberg and Gould (2007) have emphasized the distinction between these two agents: “A manager is generally concerned with planning, organizing, scheduling, budgeting, staffing, and recruiting; leaders provide vision that helps to determine the direction that the organization or team pursues, including its goals and objectives” (p. 206). This distinction took Martens (1987, p. 33) referring that “too many teams are over managed and under led”. In short, the coach is the link between both group of forces: the teams’ and the athletes’ needs, depending of the sport and the type of task (Cruz & Gomes, 1996).

The study of this subject has been increasing with the goal of observing coaches’ actions and leadership styles that were related to sporting performance, as so with the athletes’ feelings of psychological and emotional well-being (Horn, 2008). Thus, one of the models that attempted to understand this phenomenon was the multidimensional model of leadership (Chelladurai, 1978, 1990, 1993). This author advocates that athletes’ satisfaction and performance depend on the congruence between the leader’s actual behavior, the behavior preferred by the athletes and the requirements and constraints placed on the leader behavior. Regarding the first one, it depends of the coach’s characteristics, personality and experience. As for the second behavior, it arises according to athletes’ features and to the specific situation. In the behavior restricted by the situation, the coach’s behavior is influenced by the cultural context, by the group’s goals and by the type of task (e.g., individual versus team). In other words, as “more a leader’s actual behavior matches both the athlete’s preferred types of behaviors and the behaviors required of the leader given the particular situation, the greater the levels of performance and satisfaction are expected to be” (Riemer, 2007, p. 61). For example, in a situation that requires a more task-oriented style and the athletes prefer a relation oriented-style, if the coach chooses the first

(actual behavior), then is predicted higher performance and lower satisfaction (Weinberg & Gould, 2007).

In this sense, research has come to show the existence of a positive relationship between the coach's actions (according to these three behaviors) and the athletes' satisfaction and performance (Riemer & Chelladurai, 1995), the athletes' task orientation (Westre & Weiss, 1991) and the perceptions regarding the coach (Chelladurai, 1984).

Besides the importance of this model, it does not integrate the most recent approaches of the organizational psychology: the charismatic and transformational model (Bass, 1985; Bass, 1998; Bass & Avolio, 1993; Conger & Kanungo, 1987; House, 1977). This model incorporates the previous leadership approaches, as the trait theory, the behavioral and the situational theories (Bryman, 1992). Thus, the authors observed leaders that were capable of exceptional changes in the members of the group, leading them to sacrifice themselves in favor of their collective goals (Bass, 1985; Conger & Kanungo, 1987). In other words, transformational leaders encourage higher commitment (Lowe, Kroek, & Sivasubramaniam, 1996). Thus, the research shows that transformational leaders have the ability to attain outstanding outcomes by: a) reformulating beliefs about the organization's principles, b) presenting new solutions to solve important problems, c) driving radical changes; d) involving everyone in the organization's goals, e) assuming higher levels of confidence and efficiency in work, f) demonstrating accessibility to sacrifice personal interests when needed and g) efficacy in serious moments of social pressure or crisis (Avolio & Bass, 1988).

Hence, Judge and Piccolo (2004), after having made a meta-analysis based on studies containing this leadership style, concluded that "the validity of transformational leadership, in particular, seems to generalize across many situations, including when it is studied in rigorous settings" (p. 765). Hence, the advantages of applying this model in the organizations and in the collaborators' satisfaction were verified in several contexts including educational contexts (Harvey, Royal, & Stout, 2003), church (Druskat, 1994), military (Bass, 1998) and sport (Davis, 2002; Ristow, Amos, & Staude, 1999). This was also suggested by Chelladurai and Riemer (1998), when they referred that the dimensions of this new paradigm can be identified through coaches' behaviors and they give an efficient answer to the comprehension of the phenomenon, and because of these facts, this integration should be done in the study of leadership in sports (Chelladurai, 2001).

Nevertheless, the study of this topic has been more theoretical and there have been few empirical studies (Rowold, 2006), but there are some exceptions. For example, in a study with adolescents within team sports, Zacharatos, Barling, and

Kelloway (2000) analyzed the impact of their leadership styles on subjective performance measures. They found that adolescents who used transformational leadership were evaluated as more effective, satisfying, and effort-evoking by their peers and coaches.

In a study with university sports, Charbonneau, Barling, and Kelloway (2001) concluded that students' intrinsic motivation moderated the effect of transformational leadership.

Finally, Tucker, Turner, Barling and McEvoy (2010) studied the effect of transformational leaders on teenaged ice hockey players. The data indicated that this type of leadership promotes pro-social behavior for followers, decreasing aggression.

Even though the relevance of this data, the measures used (Multifactor Leadership Questionnaire-MLQ; Bass & Avolio, 1997 and Global Transformational Leadership Scale-GTLS; Carless, Wearing, & Mann, 2000) present some limitations: the first has received varied empirical support concerning its discriminate validity and factor structure (Avolio, Bass & Jung, 1995) and both scales are derived from organizational psychology and therefore there is the doubt if the specificities of sport context were considered.

Furthermore, sport context is a domain where it becomes easy to observe the players' performance (e.g., statistics, ranking). To our knowledge there is no data that analyses the relationship between leadership and the psychological experiences of athletes, and the levels of performance achieved by the athletes and their teams. Namely, what is "in stake" is trying to understand if leader's efficiency is best evaluated by the levels of satisfaction and coach-athlete compatibility or by the levels of performance that coaches achieve with their teams.

Regarding the relationship between leadership and satisfaction, it has been widely studied, namely by the social sciences (Riemer & Chelladurai, 1998). Thus, satisfaction may be understood 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). Therefore, there is data concerning the relationship between satisfaction of the members of an organization and different personal and professional indicators, specifically the effort levels shown in task performance, the willingness to stay in a group, the availability to cooperate with the rest of the group's elements, the well being levels and personal accomplishment (Saal & Knight, 1988). In sports, there are some evidence linking a higher athletes' satisfaction and some coaches' actions as training and instruction, positive feedback and social support (Horn, 2008).

On the subject of compatibility, it can be understood as “the degree to which your (*athlete*’s) goals, personality, and beliefs are consistent with your coach’s goals, personality, and beliefs” (Williams et al., 2003). Thus, although this aspect is important for the athletes’ assessment concerning their coaches, research has not given the rightful relevance to his topic (Kenow & Williams, 1999). According to the authors, athletes who exhibit a greater compatibility with their coach perceive less negative cognitive and emotional effects regarding the behaviors presented by the coaches when in competition. At the same time, a greater perception of compatibility tends to correlate with a more positive assessment by the coaches and a better communication between both sides.

As a result, in our empirical study, these variables were related to the athletes’ individual and collective performance, using the advantages of the multidimensional model of leadership and adding the charismatic and transformational approaches from psychology. These last approaches are supported by the Multidimensional Scale of Leadership in Sport which is divided into three domains: transformational, communication and decision-making.

Consequently, this study intends to analyze the coach-athlete relationship, using for that a leadership scale, and evaluates the athletes’ satisfaction and compatibility with leadership, and collective and individual performance. More specifically, we tried to understand this relation taking into consideration the sport records and the athletes’ perception, about their team and individual performance.

In this sense, the goals of the study were:

- a) Analyzing the differences between teams who won the championship and the Portuguese cup versus the other teams, in leadership, satisfaction and compatibility before and after the playoffs;
- b) Analyzing the differences in each group of teams, in the mentioned dimensions, before and after the playoffs;
- c) Analyzing the differences between both groups of teams regarding their performance goals (team and individual) after the playoffs;
- d) Analyzing the predictors of athletes’ satisfaction and compatibility with their coach through the leadership dimensions, controlling personal and sport variables.

## Method

### Participants

The present study involved 66 senior male athletes from the first national volleyball division. The athletes were included in six teams that qualified to the second phase of championship (playoffs) to compete for the national title. Thus, considering the comparative goals of this study, we divided the sample in two groups: the winner teams (comprised the winner of the national championship and the winner of the volleyball cup) and the other four teams that didn't accomplish any sport record. The winner teams were constituted by 21 athletes (31.8%) and the other teams were constituted by 45 athletes (68.2%).

In the winner teams, the age ranged from 18 to 38 years old ( $M=27.19$ ,  $SD=5.04$ ) and from 17 to 34 years old ( $M=25.02$ ,  $SD=4.17$ ) in the other teams. Concerning the years of sport practice, the winner teams' age ranged from 7 to 30 years old ( $M=14.76$ ,  $SD=6.48$ ), and 3 to 26 ( $M=12.4$ ,  $SD=4.26$ ) in the other teams. In this last group, a higher number of athletes worked with their coach during less than a year (65.1%), as did the winner teams (57.1%). Regarding the sport records, 52.4% of the winning athletes had won at least one title with their coach in the last 5 years, while in the other teams 13.3% of the athletes had obtained that same status.

### Instruments

It was applied to all athletes a questionnaire that included the following instruments of psychological assessment:

*Demographic Questionnaire.* This questionnaire evaluates personal and sport variables (e.g., sex, age, type of sport and competitive level). Additionally, we gathered information concerning the athletes' career (e.g., years of sport participation, years of work and sport records obtained with the current coach).

*Multidimensional Scale of Leadership in Sport (MSLS)* (Gomes, 2008a): This instrument evaluates leadership behaviors assumed by coaches, and includes nine dimensions and 53 items: 1) training and instruction: which refers to the training processes, teaching methods and indications given by the coaches about what athletes should do or how they can improve their sport skills (e.g., "My coach explains what should and what should not be done"), 2) personal respect and fairness: describes 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 (e.g., “My coach deals with me in a fair manner”), 3) social support: coach`s behaviors toward athletes` well-being, showing personal concern about athletes problems, as well as an interest in developing honest and informal personal relationships (e.g., “My coach expresses the affection he feels for me”), 4) vision for the future and optimism: enthusiastic and optimistic coach`s behaviours concerning the objectives and tasks to be accomplished, as well as the ability to involve team members in the ideal of a positive future for the team (e.g., “My coach points an interesting future for me”), 5) achievement motivation: coach`s behaviors which promote athletes` continuous efforts towards the tasks and the established goals, assuming high expectations of achievement for all team members (e.g., “My coach encourages my desire to succeed”), 6) positive feedback: reinforcement and recognition behaviors of coaches towards the good performance and effort produced by athletes (e.g., “My coach rewards me when I deserve it”), 7) negative feedback: punishment behaviors with the intent to manage or control the inadequate behaviors shown by athletes (e.g., “My coach punishes me”), 8) participative management: coaches actions which promote a greater involvement by the athletes in decision-making, namely in aspects related to training and competition (e.g., “My coach allows me to participate in the decisions that are made”) and 9) passive management: avoidance of responsibility and decision-making by the coaches when it is necessary to solve important problems (e.g., “My coach avoids making decisions”). The items are answered in a “Likert” scale with five options of response (1= Strong disagreement; 5= Strong agreement). The highest values in each dimension indicate higher behavior frequency assumed by coaches.

*Athlete Satisfaction Questionnaire (ASQ)* (Riemer & Chelladurai, 1998): This questionnaire measures fifteen factors of athletic satisfaction (individual performance, team performance, ability utilization, strategy, personal treatment, training and instruction, group`s task contribution, group`s social contribution, team`s ethics, team integration, personal dedication, budget, medical personnel, academic support services and external agents) through a total of 56 items. Athletes` answered according to a scale ranging from one to seven, with higher scores indicating more athlete satisfaction.

For the purpose of this study, it was used four of the subscales of the questionnaire concerning the athlete`s satisfaction with leadership: 1) satisfaction with ability utilization, describes the athletes opinion concerning the way the coach uses and/or maximizes the athletes abilities and individual talent, 2) satisfaction with

strategy, refers to the athletes' assessment towards the strategies and tactics used by the coach during the competitions, 3) satisfaction with personal treatment, points to the athletes satisfaction concerning the coach's treatment regarding directly each athlete and indirectly the team, including social support and positive feedback and 4) satisfaction with training and instruction: refers to the athlete's satisfaction concerning the coach's instructions and training.

*Compatibility coach-athlete measure (CCAM)* (Gomes, 2008b): this instrument was developed by Gomes (2008b) based on the work of Kenow and Williams (1999) and Williams and colleagues (2003). Thus, the instrument is composed by five items, answered in a "Likert" scale (1= "Nothing compatible"; 9= "Very compatible"). More specifically, this scale evaluates the degree to which athletes' goals, personality and beliefs are consistent with coaches' goals, personality and beliefs. The score is calculated by adding the items' values, then by dividing that total by the total number of items of the scale. Higher scores mean higher values of compatibility between coach and athlete.

*Performance Goal Incongruence Scale (PGIS)* (Gomes, 2008c): this questionnaire was developed by Gomes (2008c), based on the work of Crocker and Graham (1995) and Pensgaard and Duda (2003) and evaluates athletes' perception of achievement of the desire performance in the championship. The instrument is constituted by six items answered in a "Likert" scale (1= "I disagree"; 5= "I agree") that represent two factors (individual and team goals achievement). Higher values represent an elevated perception of success in achievement of performance goals.

## **Procedures**

All coaches and athletes were informed about the study's goals and the Questionnaire's administration procedures. After obtaining their agreement, the researchers met each team to collect the data, always before training sessions and in two moments. These two moments were before and after the second phase of the championship for each team (e.g., before and after the playoffs). The questionnaire included a presentation letter about the research goals and the implications of participation, making it clear that the process was volunteer. All participants who wanted information regarding the results filled in their name and address for further contact. After the playoffs, fifteen athletes didn't answer the protocol because when it was applied, these players had already gone away for their countries.

## Results

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

In the analysis procedures, we tested the fidelity of the scales of the four instruments (Cronbach's alpha) and we found that alpha values ranged from .70 to .93, which can be considered very acceptable (Nunnally & Bernstein, 1994). The only exceptions, in both moments, were social support (Cronbach's alpha=.65 and .64) and negative feedback (Cronbach's alpha=.54 and .69). For this reason, the results concerning these four dimensions must be seen with caution.

In the first analysis, we searched to assess the presence of differences in leadership, satisfaction and compatibility between the winner teams and the other teams, before the beginning of playoffs and we repeated the same procedure in the end of the championship (after the playoffs). Regarding the performance goals, we assessed the differences between both groups only in the second moment.

Then we analyzed each group separately, observing the possible presence of differences in the psychological variables from one moment to the other. These analysis were made using univariate and multivariate procedures and, in a later stage, in the cases where the normal distribution was not guaranteed they were confirmed with non-parametric tests, following the indications of Fife Schaw (2006). In all cases the results pointed in the same direction, so we chose to present the values with the parametric measures, given the fact that they are more robust and allow us to use multivariate analysis, which present the advantage of reducing the number of tests to run, thus decreasing the occurrence probability of the Type 1 error.

For the purpose of describing the results, we considered the differences significant ( $p < .05$ ) and the marginally significant ( $p < .10$ ). In the last case, the analysis should be made with some caution.

Starting by the comparison between the winner teams and the other teams in the first moment of the championship (before the playoffs), the values referring to MSLS revealed to be not significant (Wilks' Lambda=.79,  $F(9, 56)=1.61$ ,  $p=.13$ ). However, the univariate tests showed that other teams' athletes presented higher values in training and instruction and in achievement motivation (marginally significant). As for the ASQ scales, we observed marginally significant differences in the interaction between the four factors (Wilks' Lambda=.87,  $F(4, 61)=2.30$ ,  $p=.07$ ). Therefore, the other teams evidenced higher satisfaction with strategy (marginally significant) and with training and instruction (see Table 1).



Regarding the second moment of data collection (after the playoffs), referring to MSLS, the multivariate tests were significant (Wilks' Lambda=.53,  $F(9, 41)=.53$ ,  $p<.001$ ) and the winner teams presented higher values concerning participative management. In the performance goals scale, the interaction between the two dimensions was significant (Wilks' Lambda=.74,  $F(2, 47)=8.23$ ,  $p<.001$ ). Thus, in the end of the competition, the winner teams' athletes perceived a higher accomplishment of their individual performance goals and also the teams' goals (see Table 1).

In the second type of analysis, we evaluated the differences of each group (separately) comparing the two moments, relatively to the leadership, satisfaction and compatibility dimensions. For that, it was applied paired-samples t test. Therefore, starting by the winner teams, these athletes presented a higher score after the playoffs in the positive feedback, negative feedback and participative management dimensions (see Table 2).

On the other hand, the other teams exhibited lower scores after the playoffs in training and instruction, personal respect and fairness, vision for the future and optimism (marginally significant), achievement motivation, positive feedback, satisfaction with strategy and compatibility dimensions (marginally significant). The only exception was the dimension of negative feedback that increased the values after the playoffs (see Table 2).

Table 1

**Differences between the teams in each moment concerning MSLS, ASQ, CCAM and EAOOR (independent samples)**

Dimensions	<u>Before playoffs</u>				<u>After playoffs</u>			
	Winner Teams (N=21) M (DP)	Other Teams (n=45) M (DP)	gl	F	Winner Teams (n=18) M (DP)	Other Teams (n=33) M (DP)	gl	F
MSLS: Training and instruction	3.30 (.53)	3.80 (.61)	1,64	10.57**	3.33 (.67)	3.54 (.57)	1, 49	1.37
MSLS: Personal respect and fairness	3.80 (.64)	3.83 (.75)	1,64	.01	3.73 (.73)	3.66 (.60)	1, 49	1.23
MSLS: Social support	2.43 (.48)	2.66 (.75)	1,64	1.58	2.49 (.70)	2.49 (.55)	1, 49	.00
MSLS: Vision for future and optimism	3.56 (.57)	3.78 (.66)	1,64	1.73	3.63 (.66)	3.57 (.70)	1, 49	.11
MSLS: Achievement motivation	3.63 (.52)	3.94 (.74)	1,64	2.84 <sup>+</sup>	3.60 (.73)	3.59 (.68)	1, 49	.00
MSLS: Positive feedback	3.20 (.47)	3.47 (.73)	1,64	2.40	3.39 (.70)	3.21 (.69)	1, 49	.82
MSLS: Negative feedback	2.21 (.68)	2.07 (.76)	1,64	.51	2.77 (.58)	2.58 (.63)	1, 49	1.06
MSLS: Participative management	2.47 (.65)	2.49 (1.08)	1,64	.01	2.83 (.67)	2.35 (.87)	1, 49	4.07*
MSLS: Passive management	2.40 (.58)	2.27 (.80)	1,64	.48	2.22 (.66)	2.36 (.55)	1, 49	.61
ASQ: Ability utilization	4.70 (1.05)	4.80 (1.33)	1,64	.09	4.53 (1.42)	4.75 (1.25)	1, 49	.32
ASQ: Strategy	4.67 (1.13)	5.13 (.86)	1,64	3.42 <sup>+</sup>	4.79 (1.07)	4.79 (1.10)	1, 49	.00
ASQ: Personal treatment	5.04 (1.21)	5.22 (1.18)	1,64	.33	4.86 (1.44)	5.10 (1.12)	1, 49	.44
ASQ: Training and instruction	4.51 (1.18)	5.22 (1.12)	1,64	5.62*	4.57 (1.32)	5.04 (1.16)	1, 49	1.72
CCAM: Total	6.30 (1.17)	6.48 (1.60)	1, 64	.21	5.97 (1.53)	6.20 (1.35)	1, 49	.33
EAOOR: Team goals					4.31 (.69)	3.30 (1.06)	1,48	13.24***
EAOOR: Individual goals					3.87 (.75)	3.23 (1.08)	1,48	4.95*

\*p<.05, \*\*p<.01, \*\*\*p<.001, <sup>+</sup>p<.10

Table 2

**Differences in each team before and after the championship concerning MSLS, ASQ, CCAM (paired samples)**

Dimensions	<u>Winner Teams</u>				<u>Other Teams</u>			
	Before playoffs	After playoffs	gl	F	Before playoffs	After playoffs	gl	F
	(N=21)	(n=45)			(n=18)	(n=33)		
	M (DP)	M (DP)			M (DP)	M (DP)		
MSLS: Training and instruction	3.26 (.57)	3.33 (.67)	17	-.57	3.81 (.60)	3.54 (.57)	32	2.87**
MSLS: Personal respect and fairness	3.79 (.67)	3.73 (.73)	17	.45	3.84 (.64)	3.66 (.60)	32	2.04*
MSLS: Social support	2.36 (.46)	2.49 (.70)	17	-1.02	2.60 (.70)	2.49 (.55)	32	1.28
MSLS: Vision for future and optimism	3.49 (.58)	3.63 (.66)	17	-1.08	3.79 (.66)	3.57 (.70)	32	1.82 <sup>+</sup>
MSLS: Achievement motivation	3.55 (.49)	3.60 (.73)	17	-.33	3.96 (.77)	3.59 (.68)	32	3.64***
MSLS: Positive feedback	3.14 (.46)	3.39 (.70)	17	-2.14*	3.42 (.71)	3.21 (.69)	32	2.44*
MSLS: Negative feedback	2.22 (.71)	2.77 (.58)	17	-3.73**	2.08 (.73)	2.58 (.63)	32	-3.44**
MSLS: Participative management	2.50 (.69)	2.83 (.67)	17	-1.77 <sup>+</sup>	2.52 (1.02)	2.35 (.87)	32	1.21
MSLS: Passive management	2.41 (.52)	2.22 (.66)	17	1.38	2.28 (.80)	2.36 (.55)	32	-1.55
ASQ: Ability utilization	4.78 (1.09)	4.53 (1.42)	17	1.29	4.90 (1.30)	4.75 (1.25)	32	.97
ASQ: Strategy	4.59 (1.17)	4.79 (1.07)	17	-.89	5.14 (.91)	4.79 (1.10)	32	2.50*
ASQ: Personal treatment	4.99 (1.26)	4.86 (1.44)	17	.62	5.30 (1.11)	5.10 (1.12)	32	1.35
ASQ: Training and instruction	4.39 (1.23)	4.57 (1.32)	17	-.90	5.28 (1.16)	5.04 (1.16)	32	1.36
CCAM: Total	6.24 (1.22)	5.97 (1.53)	17	.94	6.52 (1.43)	6.21 (1.35)	32	1.85 <sup>+</sup>

\*p<.05, \*\*p<.01, \*\*\*p<.001, <sup>+</sup>p<.10

Finally, in the last analysis we searched to predict satisfaction and compatibility with leadership, using the leadership dimensions as predictors (MSLS). For that, we composed hierarchical regression analysis (“enter” method), controlling the variables related to sport records (winner teams and the other teams), team goals (EAOOR team) and individual goals (EAOOR individual).

Hence, we searched to observe multicollinearity indicators (“Tolerance indices”-IT, “Variance Inflation Factor”-VIF and “Condition Index”-CI) and observations’ independence (“Durbin Watson” values), revealing the absence of this problem in the tested models.

Concerning the prediction of satisfaction with leadership, we calculated a global score that resulted of the average of the four ASQ subscales. The variables sport records and team goals were not significant and explained 1% and 1.2% of the total variance, respectively. On the other hand, the attainment of individual goals explained 26% of the total variance and was significant in the model. This means that there was a positive relationship between the perception of individual goals achievement and satisfaction with leadership. In a last stage, we introduced the leadership dimensions, and the model explained 84% of the total variance, being significant the factors personal respect and fairness and vision for the future and optimism (marginally significant). Thus, the results showed that satisfaction with leadership was predicted by higher levels of personal respect and fairness and vision for the future and optimism (see Table 3).

Lastly, in the prediction of compatibility with leadership, the variables sport records and team goals explained 1% and 6% of the total variance, respectively, and were not significant in the model. Conversely, the variable individual goals assumed significant values and explained 32% of the total variance. Thus, there was a positive relationship between the perception of individual goals achievement and the compatibility with the coach. With the introduction of leadership dimensions, the model explained 75% of the total variance and four scales were significant: personal respect and fairness, positive feedback, achievement motivation and participative management (these last two variables were marginally significant). Hence, the compatibility with coach was predicted by higher levels of personal respect and fairness and positive feedback, and with lower levels of achievement motivation and participative management (see Table 4).

Table 3

**Regression model for the prediction of satisfaction with leadership**

<b>Block 1 – Sport records in the season</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(1, 48)</b>	<b>β</b>	<b>t</b>
Sport records in the season <sup>a</sup>	.01 (-.01)	.49	-.10	-.70
<b>Block 2 – EAOOR team goals</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(2, 47)</b>	<b>β</b>	<b>t</b>
EAOOR team goals	.01 (-.03)	.28	-.05	-.29
<b>Block 3 – EAOOR individual goals</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(3, 46)</b>	<b>β</b>	<b>t</b>
EAOOR individual goals	.26 (.21)	5.27**	.52	3.89***
<b>Block 4 – MSLS dimensions</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(12, 37)</b>	<b>β</b>	<b>t</b>
Personal respect and fairness			.58	5.09***
	.84 (.79)	15.96***		
Vision for the future and optimism			.26	1.96 <sup>+</sup>

<sup>a</sup>Sport records in the season: 0- Other teams, 1- Winner teams,

<sup>+</sup>p<.10, \*\*p<.01, \*\*\*p<.001

Table 4

**Regression model for the prediction of compatibility with leadership**

<b>Block 1 – Sport records in the season<sup>a</sup></b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(1, 48)</b>	<b>β</b>	<b>t</b>
Sport records in the season <sup>a</sup>	.01 (-.02)	.26	-.10	-.70
<b>Block2 – EAOOR team goals</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(2, 47)</b>	<b>β</b>	<b>t</b>
EAOOR team goals	.06 (.02)	1.47	-.05	-.29
<b>Block 3 – EAOOR individual goals</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(3, 46)</b>	<b>β</b>	<b>t</b>
EAOOR individual goals	.32 (.28)	7.33***	.52	3.89***
<b>Block 4 – MSLS dimensions</b>	<b>R<sup>2</sup> (R<sup>2</sup> adj)</b>	<b>F(12, 37)</b>	<b>β</b>	<b>t</b>
Personal respect and fairness			.56	3.90***
Achievement motivation	.75 (.67)		-.32	-1.75 <sup>+</sup>
Positive feedback	9.09***		.52	3.49***
Participative management			-.26	-1.89 <sup>+</sup>

<sup>a</sup>Sport records in the season: 0- Other teams, 1- Winner teams,

<sup>+</sup>p<.10, \*\*\*p<.001

## Discussion

This study had two main goals. First of all, we intended to analyze if there were differences in the dimensions evaluated (e.g., coaches' leadership, satisfaction with leadership, coach-athlete compatibility, and perception of goal attainment) between teams with different sport records and the differences in the dimensions before and after the playoffs. Second, we tried to observe which variables best explain the coach-athlete relationship (in terms of satisfaction and compatibility), defining as predictors four groups of variables: the sport records, the perception of team goals attainment, the perception of individual goals attainment, and finally the leadership dimensions.

In fact, there is a lack of knowledge about the variability in the athletes' evaluation of leadership styles across the sport season, particularly before and after decisive sport moments (e.g., playoffs) and also between teams that achieve different results in the competitions. So in this study, we tried to overcome this problem, giving indications about the way athletes with best sport results, compared with the ones that didn't achieve the same performance, evaluated their coaches, their individual and team performance, and their satisfaction with leadership. Besides, we tried to respond to the question "What should best predict the athletes' experiences with the leadership of their coaches: the sport records, the attainment of individual and team goals or the actions of the coaches?".

This analysis was done considering the multidimensional model of Leadership in sports (Chelladurai, 1978, 1990, 1993) and integrating the charismatic and transformational leadership approaches (Bass, 1985; Bass, 1998; Bass & Avolio, 1993; Conger & Kanungo, 1987; House, 1977).

A first aspect to be referred concerns the fidelity of the scales used. The cronbach's alpha ranged between .70 and .93, except the social support and negative feedback dimensions (both moments) and, for that reason, the data concerning these dimensions must be seen with some caution.

Therefore, starting by the comparative analysis between the two groups (winner teams and the other teams) before the playoffs (first moment), we should emphasize that the winner teams assumed a more negative assessment of their coaches, namely in training and instruction and satisfaction with training and instruction. In other words, before these athletes knew what would be the final results, they had a more negative perception of their coaches' in this technical leadership dimension. When analyzing the results obtained after the playoffs, of the whole dimensions (leadership, satisfaction and leadership compatibility) only one factor was significant: participative management.

Thus, the winner teams assessed more positively their coaches in this subscale. So we can conclude that, although the winner teams made a more negative assessment of the technical dimension before the playoffs, this difference disappeared and in the end of the season, that assessment came to be the most positive of the decision making domain. This data seems to confirm the results of other studies where athletes who presented the best sport records tended to assess their coaches more positively (see Antunes, & Cruz, 1997; Gomes, & Cruz, 2006; Gomes, Pereira, & Pinheiro, 2008; Horn, 2008; Leitão, 1999; Riemer, & Chelladurai, 1995).

Additionally, we compared the athletes of both groups concerning their individual and collective goals. The results demonstrate that the winner teams has a perception which is more according to the attainment of the individual and collective goals, comparatively to the other teams. In other words, the winner teams` assessment shows that their goals were achieved, mainly the collective ones.

Regarding the differences obtained in each team between the two competitive moments, and starting by the winner team, we can observe a higher score on the positive feedback and negative feedback dimensions after the playoffs. This means that for the successful athletes, their coaches made a behavioral change in the communication domain, since the beginning of the playoffs until the end of the season. In the first case, it seems reasonable that athletes with better results should perceive that their coaches increased their reinforcement and appreciation levels according to their positive exhibitions. Concerning the increase of negative feedback, it would not be an expected result (negative leadership dimension). One of the explanations for this fact could be the increasing of the games` level of importance, where the acceptance error is minimal. In this case, it is possible that some coaches when presented with the athletes` inadequate behaviors in decisive moments of the season, will augment negative communication. In addition, the analysis of these dimensions must be made with prudence, due to its low cronbach's alpha. However, this result must be confirmed in future research concerning this topic.

Referring to the other teams, these athletes assessed their coaches more negatively in training and instruction, personal respect and fairness, achievement motivation, positive and negative feedback and satisfaction with strategy dimensions, after the playoffs. In the evaluation of the coaches` actions, we observed that this group perceives fewer behaviors in the transformational and communication domain. Concerning the first, the athletes who did not achieve any sport record, assessed a decrease in their coaches` recommendations about what they should and should not do to improve their technical component. The same happens in relationship dimensions of leadership. In this case, there is a perception of less equity in personal treatment,



considering the human aspects of all the members of the group. About the achievement motivation dimension, this group also presented a more negative assessment of their coaches' behavior, which reflects that their leaders promoted less actions toward the accomplishment of the established goals.

In the communicational factor, before and after the playoffs, there was a decrease of positive feedback and an increase of negative feedback. The other teams of athletes assessed negatively the communication dimension, which indicates that for them their coach's behavior changed in the decrease of the quantity of reinforcements and in the increase of punishments.

Finally, there was also a lower perception after the playoffs concerning the satisfaction with strategy. In other words, this group assesses more negatively their coaches, concerning the plans and strategies used in the competitions.

In the last type of analysis, we attempted to identify the predictors of satisfaction and compatibility with leadership. For this, we used the leadership dimensions, controlling, by this order, the variables sport records and perceptions of team and individual goals accomplishment. Starting by satisfaction with leadership, we observed that the variable sport records, explains a low percentage of the total variance (1%), and was not significant in the model. This allows us to conclude, and taking into account the central goal of this study, that satisfaction is not predicted by the results obtained in the end of the playoffs.

As for the athletes' perception about the achievement of their collective goals (second model), it was not also significant but this pattern of results did not occur with the individual goals which explain 26% of the total variance, being significant in the model. In other words, for all the athletes of our study, to predict the satisfaction with their coaches one of the most important factors is the achievement of their individual goals.

Regarding the athletes' assessment toward their coaches' actions, the results highlight that the model explains 84% of the total variance (which is a significant amount of variance explained) with the personal respect and fairness dimension being significant. Thus, we can conclude that, beyond the individual goals, what best predicts the athletes' satisfaction toward their coaches' is the relational domain. In other words, the way the leader deals with each group member was one of the most important dimensions of leadership in this study. These conclusions seem to confirm the data obtained by Gomes, Lopes and Mata (2010) with swimming and handball athletes, because one of the predictors of satisfaction with leadership was the personal respect and fairness factor. Additionally, Rowold (2006) observed that one of the dimensions which best explains this relationship was the individualized consideration subscale, in

martial arts' athletes. Thus, this data reflects that what best explains the athletes' satisfaction with their coaches, are the perceptions concerning the leader's behaviors and the individual goals, and not the results and the perception of collective goals.

Concerning the predictors of compatibility with leadership, we verified results similar to the previous analysis. In other words, the collective goals and the sport records explain only 6% of the variance, but were not significant in the model. This means, as in satisfaction with leadership, that the sport records didn't explain the compatibility between the athletes and coaches.

Conversely, the individual goals revealed to be significant in the model, explaining 32% of the total variance, meaning once again that they were an important predictor of this relationship.

Finally, the athletes' perception concerning the coaches' behaviors explains 75% of the total variance (again this is a significant amount of variance explained), being significant the personal respect and fairness and positive feedback dimensions. Thus, the results showed that the predictors of compatibility, beyond the individual goals, have to do with the relational and positive communication domains. Therefore, we must highlight the equity treatment toward the members of the whole group and the reinforcement behaviors concerning positive performances.

In short, the results of this study reveal, clearly, that the leadership efficacy, when assessed through the athletes' satisfaction and compatibility with their coaches, is best explained by the athletes' perceptions concerning their personal goals and the coaches' actions, confirming what was proposed by Courneya and Chelladurai (1991) and Riemer and Chelladurai (1998). Hence, in this first empirical study, the data provides an important tool for the discussion of this issue, not confirming what was proposed by Hogan and Craig (2008).

In this sense, it would be necessary to collect more data to verify these results in the sport context. Thus, it would be important evaluate these variables through quantitative and qualitative longitudinal studies and in other sports (e.g., individual sports).

As so, this data reveals that coaches need to go beyond the technical, tactical and physical aspects and give more attention to the relational and communication domains of the relationship with their athletes. The reinforcement of these skills will surely promote the coach-athlete relationship, at an individual and collective level and, consequently, all the psychological and performance processes involved.

Concluding, the results of this study emphasize the winners' team more positive assessment regarding participative management and in the individual and collective goals after the playoffs. Additionally, this group perceived more positive feedback,

while the other teams, perceived less training and instruction, personal respect and fairness, achievement motivation, positive feedback and satisfaction with the strategy after the playoffs. Finally, the leadership`s efficacy is explained through the individual goals and the relational and communicational domains.

## References

- Antunes, J. M., & Cruz, J. F. (1997). Dinâmica de grupos e sucesso na alta competição: As relações entre liderança, coesão, satisfação e rendimento no basquetebol. In J. F. Cruz & A. R. Gomes (Eds.), *Psicologia aplicada ao desporto e à actividade física: Teoria, investigação e prática* (pp. 103-123). Braga: Universidade do Minho-APPORT.
- Avolio, B. J. (1999). *Full leadership development: Building the vital forces in organizations*. London: Sage Publications.
- Avolio, B. J. & Bass, B. M. (1988). Transformational leadership, charisma and beyond. In J. Hunt, H. R. Baliga, H. P. Dachler & C. A. Schriesheim (Eds.), *Emerging leadership vistas* (pp. 29-49). Lexington, MA: D. C. Heath.
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1995). *Multifactor Leadership Questionnaire Technical Report*. Redwood City, CA: Mind garden.
- Barrow, J. C. (1977). The variables of leadership: A review and conceptual framework. *Academic Management Review*, 2, 231-251.
- Bass, B. M. (1981). *Stogdill's handbook of leadership*. New York: Free Press.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: The Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications*. New York: Free Press.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military and educational impact*. New Jersey: Lawrence Erlbaum Associates.
- Bass, B.M., & Avolio, B.J. (1993). Transformational leadership: A response to critiques. In M. M. Chemers & R. Ayman (Eds.), *Leadership theory and research: Perspectives and directions* (pp. 49-80). New York: Academic Press.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Newbury Park, CA: Sage Publications.
- Bass, B. M., & Avolio, B. J. (1997). *Full Range leadership development: Manual for the Multifactor Leadership Questionnaire*. California: Mind Garden.
- Bass, B. M. & Avolio, B. J. (1999). *Training full range leadership: A resource guide for training with the MLQ*. California: Mind Garden.
- Blake, R., & Mouton, J. (1978). *The new managerial grid*. Houston: Gulf Publishing, CO.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, 11, 238-263.

- Bryman, A. (1992). *Charisma and leadership in organizations*. London: Sage Publications.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Carless, S., Wearing, A., & Mann, L. (2000). A short measure of transformational leadership. *Journal of Business and Psychology, 14*, 389–405.
- Charbonneau, D., Barling, J., & Kelloway, E.K. (2001). Transformational leadership and sports performance: The mediating role of intrinsic motivation. *Journal of Applied Social Psychology, 31*, 1521-1534.
- Chelladurai, P. (1978). *A contingency model of leadership in athletics*. Dissertação de doutoramento. Canadá: Universidade de Waterloo.
- Chelladurai, P. (1984). Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in varying sports. *Journal of Sport Psychology, 6*, 27-41.
- Chelladurai, P. (1990). Leadership in sports: A review. *International Journal of Sport Psychology, 21*, 328-354.
- Chelladurai, P. (1993). Leadership. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 647-671). New York: Macmillan Publishing Company.
- Chelladurai, P. (2007). Leadership in sports. In G. Tenenbaum & R. Eklund (Eds.), *Handbook of sport psychology* (pp. 113-135). New Jersey: John Wiley and Sons, Inc.
- Chelladurai, P., Imamura, H., Yamaguchi, Y., Oinuma, Y., & Miyauchi, T. (1988). Sport leadership in a cross-national setting: The case of Japanese and Canadian university athletes. *Journal of Sport & Exercise Psychology, 10*, 374-389.
- Chelladurai, P., & Riemer, H. (1997). A classification of facets of athletic satisfaction. *Journal of Sport Management, 11*, 133-159.
- Chelladurai, P., & Reimer, H. (1998). Measurement of leadership in sport. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 227-253). Fitness Information Technology, Inc. Morgatown. USA.
- Chelladurai, P., & Saleh, S. D. (1978). Preferred leadership in sports. *Canadian Journal of Applied Sport Sciences, 3*, 85-92.
- Chelladurai, P., & Saleh, S. D. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport Psychology, 2*, 34-45.
- Conger, J. A. (1989). *The charismatic leader: Behind the mystic of exceptional leadership*. San Francisco: Jossey-Bass.

- Conger, J. A. (1999). Charismatic and transformational leadership in organizations: An insider's perspective on those developing streams of research. *Leadership Quarterly*, 10, 145-170.
- Conger, J. A., & Kanungo, R. (1987). Toward a Behavioral theory of charismatic leadership in organizational settings. *The Academy of Management Review*, 12, 637- 647.
- Conger, J. A., & Kanungo, R. (1998). *Charismatic leadership in organizations*. London: Sage Publications.
- Courneya, K. S., & Chelladurai, P. (1991). A model of performance measures in baseball. *Journal of sport psychology*, 13, 16-25.
- Crespo, M., & Balaguer, I. (1994). Las relaciones entre el deportista y el entrenador. In I. Balaguer (Ed), *Entrenamiento psicológico en el deporte: Principios y aplicaciones* (pp. 17-59). Valencia: Albatroz-Educación.
- Crocker, P.R.E., & Graham, T.R. (1995). Coping by competitive athletes with performance stress: Gender differences and relationships with affect. *The Sport Psychologist*, 9, 325-338.
- Cruz, J. F., & Antunes, J. (1997). Adaptação e características psicométricas do “questionário de coesão desportiva” e da “escala de satisfação com a competição”. In J. F. Cruz & A. R. Gomes, (Eds.), *Psicologia aplicada ao desporto e à actividade física: Teoria, investigação e prática* (pp. 339-348). Braga: Universidade do Minho-APPORT.
- Cruz, J., Dias, C., Gomes, R., Alves, A., Sá, S., Viveiros, I., Almeida, S., & Pinto, S. (2001). Um programa de formação para a eficácia dos treinadores da iniciação e formação desportiva. *Análise Psicológica*, 1, 171-182.
- Cruz, J., & Gomes, A. R. (1996). Liderança de equipas desportivas e comportamentos do treinador. In J. F. Cruz (ed), *Manual de Psicologia do Desporto* (pp. 389-409). Braga: S. H. O.
- Cruz, J., Gomes, A. R., & Dias, C. (1997). Promoção e melhoria da relação treinador-atletas na formação desportiva: Eficácia de intervenções psicológicas no andebol. *Psicologia: Teoria, Investigação e Prática*, 2, 587-610.
- Davis, D. J. (2002). An analysis of the perceived leadership styles and levels of satisfaction of selected junior college athletic directors and head coaches. *Sport Journal*, 5, 27–33.
- Dipboye, R. L., Smith, C. S. & Howell, W. C. (1994). *Understanding industrial and organizational psychology: An integrated approach*. Fort Worth: Holt, Rinehart and Winston.

- Druskat, V. U. (1994). Gender and leadership style: Transformational and transactional leadership in the roman catholic church. *Leadership Quarterly*, 5, 99–119.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. New York: McGraw Hill.
- Fiedler, F. E. (1971). Validation and extension of the contingency model of leadership effectiveness: A review of empirical findings. *Psychological Bulletin*, 76, 128-148.
- Fife-Schaw, C. (2006). Levels of measurement. In G. M. Breakwell, S. Hammond, C. Fife-Schaw & J. A. Smith (Eds.), *Research methods in psychology* (3rd ed) (pp. 50-63). London: Sage.
- Fiol, C. H. (1999). Charismatic leadership: Strategies for effecting social change. *Leadership Quarterly*, 10, 449-483.
- Gomes, A. R. (2005). *Liderança e relação treinador-atleta em contextos desportivos*. Tese de Doutoramento. Braga: Universidade do Minho.
- Gomes, A.R. (2008a). Escala multidimensional de liderança no desporto: Reanálise da estrutura factorial. In A. P. Noronha, C. Machado, L. Almeida, M. Gonçalves, & V. Ramalho (Eds.), *Actas da XIII conferência internacional de avaliação psicológica: Formas e contextos*. Braga: Psiquilíbrios Edições.
- Gomes, A.R. (2008b). *Medida de Compatibilidade Treinador-Atleta (MCTA)*. Relatório técnico não publicado. Braga: Universidade do Minho.
- Gomes, A.R. (2008c). *Escala de Insucesso na Obtenção dos Objectivos de Rendimento EIOOR*. Relatório técnico não publicado. Braga: Instituto de Educação e Psicologia, Universidade do Minho.
- Gomes, A. R., & Cruz, J. F. (2006). Estilos de liderança, coesão e satisfação no desporto: Análise das diferenças em função do tipo de modalidade praticada e do sucesso desportivo obtido pelos atletas. In M. Santos, M. Lima, M. Melo, A. Candeias, M. Grácio & A. Calado (Eds.), *Actas do VI Simpósio Nacional de Investigação em Psicologia* (vol. 11, pp. 103-123). Évora: Departamento de Psicologia. Universidade de Évora.
- Gomes, A.R., Dias, C., & Cruz, J.F. (1999). Avaliação e “follow-up” da eficácia de uma intervenção cognitivo-comportamental no desporto: Um estudo de caso. In A. Soares, S. Araújo & S. Caires (Eds.), *Avaliação psicológica: formas e contextos* (Vol. VI., pp. 893-902). Braga: APPORT - Associação dos Psicólogos Portugueses.
- Gomes, A.R., Lopes, H., & Mata, R. (2010). Leadership styles, cohesion and satisfaction in sports: A comparative study between swimming and handball Portuguese teams. (submetido para publicação).

- Gomes, A.R., Pereira, A.P., & Pinheiro, A.R. (2008). Liderança, coesão e satisfação em equipas desportivas: Um estudo com atletas portugueses de futebol e futsal. *Psicologia: Reflexão e Crítica*, 21(3), 482-491.
- Gomes, A. R., Sousa, S. A., & Cruz, J. F. (2006). Charismatic, transformational and visionary dimensions in sport leadership: Towards new paths for the study of coach-athletes relationships. In N. S. Huber & M. Harvey (Eds.), *Leadership at the crossroads* (pp. 84-94). University of Maryland: The James Mc Gregor Burns Academy of Leadership.
- Harvey, S., Royal, M., & Stout, D. (2003). Instructors' transformational leadership: University student attitudes and ratings. *Psychological Reports*, 92, 395–402.
- Hemphill, J. K. & Coons, A. E. (1957). Development of the leader behavior description questionnaire. In R. M. Stogdill & A. E. Coons (Eds.), *Leader behavior: Its description and measurement* (pp. 522-532). Columbus: Ohio State University, Bureau of Business Research.
- Hersey, P., & Blanchard, K. H. (1969). Life cycle theory of leadership. *Training and Development Journal*, 23, 26-34.
- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9, 169–180.
- Horn, T. S. (2008). Leadership effectiveness in the sport domain. In T. S. Horn (Ed), *Advances in sport psychology* (pp. 239-267). Champaign IL: Human Kinetics.
- Horne, T., & Carron, A. V. (1985). Compatibility in coach-athlete relationships. *Journal of Sport Psychology*, 7, 137–149.
- House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189-207). Carbondale: Southern Illinois University Press.
- Howell, J. M., & Frost, P. J. (1989). A laboratory study of charismatic leadership. *Organizational Behavior and Human Decision Processes*, 43, 243-269.
- Jowett, S., & Poczwardowski, A. (2007). Understanding the coach-athlete relationship. In S. Jowett, & D. Lavalley (Eds.), *Social psychology in sport* (pp 3–14). Champaign, IL: Human Kinetics.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89, 755–768.
- Kaiser, R., Hogan, R., & Craig, S. (2008). *Leadership and the fate of organizations*. *American Psychologist*, 2, 96-110.
- Kaplan, R., & Norton, D. (1996). *The balanced scorecard*. Boston: Harvard Business School Press.



- Kenow, L.J., & Williams, J.M. (1999). Coach-athlete compatibility and athlete's perception and evaluative reactions to coaching behaviors. *Journal of Sport Behavior*, 22, 251-259.
- Leitão, J.C. (1999). *A relação treinador-atleta: Percepção dos comportamentos de liderança e de coesão em equipas de futebol*. Tese de Doutoramento. Coimbra: Universidade de Coimbra.
- Leonard, H. S. (2003). Leadership development for the post-industrial, post-modern information age. *Consulting Psychology Journal: Practice and Research*, 55, 3-14.
- Martens, R. (1987). *Coaches guide to sport psychology*. Champaign IL: Human Kinetics.
- Muchinsky, P. M. (1999). *Psychology applied to work*. Belmont: Wadsworth Thomson Learning.
- Nunnally, J.C., & Bernstein, I.H. (1994). (3rd Ed.) *Psychometric theory*. New York: McGraw Hill.
- Pensgaard, A.M., & Duda, J.L. (2003). Sydney 2000: The interplay between emotions, coping, and the performance of Olympic-level athletes. *The Sport Psychologist*, 17, 253-267.
- Rego, A. (1998). *Liderança nas organizações. Teoria e prática*. Aveiro: Universidade de Aveiro.
- Riemer, H.A. (2007). Multidimensional model of coach leadership. In S. Jowett & D. Lavallee (Eds), *Social Psychology in sport* (pp. 57-73). Champaign, IL: Human Kinetics.
- Riemer, H. A., & Chelladurai, P. (1995). Leadership and satisfaction in athletics. *Journal of Sport & Exercise Psychology*, 17, 276-293.
- Riemer, H. A., & Chelladurai, P. (1998). Development of the athlete satisfaction questionnaire (ASQ). *Journal of Sport & Exercise Psychology*, 20, 127-156.
- Ristow, A. M., Amos, T. L., & Staude, G. E. (1999). Transformational leadership and organizational effectiveness in the administration of cricket in South Africa, *South African Journal of Business Management*, 30, 1-5.
- Rowold, J. (2006). Transformational and transactional leadership in martial arts. *Journal of Applied Sport Psychology*, 18, 312-325.
- Saal, F.E., & Knight, P.A. (1988). *Industrial/organizational psychology: Science and practice*. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Schein, E. (1970). *Organization psychology*. New York: Prentice-Hall.
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organizational Science*, 4, 1-17.

- Shamir, B., Zakay, E., Breinin, E., & Popper, M. (1998). Correlates of charisma leader behaviour in military units: Subordinates' attitudes, unit characteristics, and superiors' appraisals of leader performance. *Academy of Management Journal*, 41, 387-409.
- Smith, R. E., & Smoll, F. L. (1996). The coach as focus of research and intervention in youth sports. In F. L. Smoll, & R. E. Smith (Eds.), *Children and youth in sport. A Biopsychosocial perspective* (pp.125-137). Dubeque, IA: Brown & Benchmark Publishers.
- Smith, R., & Smoll, F. (1997). Coaching the coaches: Youth sports as a scientific and applied behavioral setting. *Current Directions in Psychology Science*, 6, 16-21.
- Smith, R., Smoll, F., & Curtis, B. (1978). Coach effectiveness training: A cognitive-behavioral approach to enhancing relationship skills in youth sport coaches. *Journal of sport psychology*, 1, 59-75.
- Smoll, F., & Smith, R. (1989). Leadership behaviors in sport: A theoretical model and research paradigm. *Journal of Applied Social Psychology*, 19, 1522-1551.
- Stogdill, R. M. (1974). *Handbook of leadership*. New York: Free Press.
- Tucker, S., Turner, N., Barling, J., & McEvoy, M. (2010). Transformational leadership and children's aggression in team settings: A short-term longitudinal study. *The Leadership Quarterly*, 21, 389-399.
- Vecchio, R. (1995). *Organizational behavior* (3<sup>rd</sup> Ed.). Fort Worth: The Dryden Press.
- Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision making*. Pittsburgh: University of Pittsburgh Press.
- Weber, M. (1964). *The theory of social economic organization*. New York: The Free Press.
- Weber, M. (1968). *Economic and society* (Vol. I). New York. Bedminster.
- Weinberg, R., & Gould, D. (1995). *Foundations of sport and exercise psychology*. Champaign IL: Human Kinetics.
- Westre, K., & Weiss, M. (1991). The relationship between perceived coaching behaviors and group cohesion in high school football teams. *The Sport Psychologist*, 5, 41-54.
- Williams, J., Gerome, J., Kenow, L., Rogers, T., Sartain, T., & Darland, G. (2003). Factor Structure of the Coaching Behavior Questionnaire and its Relationship to Athlete Variables. *The Sport Psychologist*, 17,16-34.
- Yukl, G. (1998). *Leadership in organizations* (2<sup>th</sup> Ed). Englewood Cliffs, NJ: Prentice-Hall.
- Yukl, G. (1998). *Leadership in organizations* (4<sup>th</sup> Ed). Englewood Cliffs, NJ: Prentice-Hall.

Zacharatos, A., Barling, J., & Kelloway, E.K. (2000). Development and effects of transformational leadership in adolescents. *Leadership Quarterly*, 11, 211-227.