

Coach-athlete dyad: perception of psychosocial and environmental factors in the relationship - a case study

Pareja entrenador-atleta: percepción de los factores psicosociales y ambientales en la relación – un estudio de caso

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Abstract. In this study, we intended to identify psychosocial and environmental factors common to both, coach and athlete, in a situation of relational dyad, perceived by themselves, in a context of individual sport. In the same way, to perceive which factors were considered most preponderant in the sports performance by the two elements of the dyad. Two interviews were conducted individually, to both coach and athlete, and identified the variables present in this dyad by the coding of the interviews. In the analysis of the collected data, the method used was qualitative. Ten common factors were identified: environment, confidence, empathy, mental exigency, motivation, objectives, perfectionism, resilience, overcoming and values. However, there were significant differences in the relative frequencies of each of these factors, depending on whether they came from the coach or the athlete. It was concluded that, despite the existence of factors common to both subjects, the perception of their significance for the relationship, is not the same. The results also suggest that coaches have a significant focus on the variables of competence. On the other hand, the athletes, in addition to the competence variables, also focus on bond factors such as confidence, or self-knowledge factors such as overcoming.

Keywords: coach-athlete dyad, relationship quality, psychosocial factors, environmental factors.

Resumen. En este estudio pretendemos identificar factores psicosociales y ambientales comunes a ambos, entrenador y atleta en situación de pareja relacional, percibidos por los propios, en contexto de modalidad individual. De igual modo, percibir cuáles los factores juzgados más preponderantes en el rendimiento deportivo por los dos elementos de la pareja. Fueron realizadas dos entrevistas, individualmente, a ambos, entrenador y atleta, identificadas las variables presentes en esta pareja a través de la codificación de las entrevistas. En el análisis de los datos recogidos, el método utilizado fue cualitativo. Se identificaron diez factores comunes: ambiente, confianza, empatía, exigencia mental, motivación, objetivos, perfeccionismo, resiliencia, superación y valores. Sin embargo, se verificaron diferencias significativas, en cuanto a las frecuencias relativas de cada uno de estos factores, dependiendo se provenían del entrenador o del atleta. Se concluyó que, a pesar de la existencia de factores comunes a ambos sujetos, la percepción de su significancia para la relación no es igual. Los resultados sugieren que los entrenadores tienen un foco significativo en las variables de cualificaciones. Por otro lado, los atletas, más allá de las variables de cualificación, también tienen foco en factores de vínculo como la confianza, o de autoconocimiento, como la superación.

Palabras clave: pareja entrenador-atleta, calidad de la relación, factores psicosociales, factores ambientales.

Introduction

Sports practice, in addition to its competitive aspect, is also recognized today as an activity of profound social and emotional relationships, assuming a central role in the development of modern societies. Performance and success, are common denominators in the objectives of the various actors involved: athletes, coaches, managers, sponsors. In the path that mediates between the formulation of goals, individual or collective, and its concretization, relationships of emotional, motivational and social support interdependence are formed between the various stakeholders. And it is in the quality of these relationships, often undervalued, that lies the key to success.

Currently, the coach-athlete relationship is assumed to be a fundamental vector in the sporting context, being, for this reason, widely investigated. The research has focused on several aspects of this dyad, from the factors of leadership and personality, to motivational, communication, cohesion and emotional factors. In the present study, we will reflect on the psychosocial and environmental factors that involve this relationship.

Within the athletic community, the coach/athlete dyad is regarded as probably the most important (Côté & Gilbert, 2009), and consists of a relationship in which the role of the coach is to lead, instruct, support, and the role of the athlete is to perform, learn and receive support (Jowett & Nezelek, 2012). In this relationship, the athlete seeks to learn techniques and tactics, to be competent, successful and to achieve satisfaction. The coach seeks to convey knowledge and experiences, enhance the athlete, and, also, success and satisfaction.

The coach-athlete relationship was defined as the situation in which the emotions, thoughts and behaviors of the coach and the athlete are mutually and causally interconnected (Jowett & Ntoumanis, 2004). The main objective is the development of a performance in which coach and athlete assume fundamental roles, interconnected and of mutual emotional support. Jowett (2010), states that these two people form a unique, powerful, dyadic relationship, that allows them to achieve their personal goals and those of the relationship. Coaches' behaviors can have great impact on the athletes' life and are decisive in their satisfaction (Baker, Yardley & Côté, 2003). The way coaches and athletes interact is preponderant to the effectiveness of the training process (Lorimer & Jowett, 2008). Jowett (2017), in a study entitled «Coaching Effectiveness: The Coach-Athlete Relationship at its Heart», concluded that coaches and athletes do not

work alone, isolated, they must inevitably establish relationships and work together. The author also concluded about the instrumental quality of the relationship, since it will activate fundamental processes in the field of training, such as influence, support, help, guidance, instruction, listening, willing, following and accepting, conditions necessary so that both, coach and athlete, evolve, grow and achieve success.

Côté, Young, North and Duffy (2007), refers to the coach's need to be able to understand and respond to the needs of the athletes in the different environments in which they train - adaptation of the coach to the context. A study conducted by Teques, Silva and Borrego (2014), aimed to evaluate the simultaneous influences of coach behavior and motivational beliefs about adolescent satisfaction with sports practice. Participants were 573 young athletes (387 boys and 186 girls), aged between 13 and 18 years. The results suggest that, the degree of satisfaction of athletes with sports practice, increases with the perception that the coach has his/her focus on sports development, organization and instruction, that he/she cares about the well-being of the athletes, creating a positive environment and recognizing the quality of performance.

According to Jowett (2007), coaches and athletes work together, form close relationships, interaction and dependence on one another, manifested in affections, cognitions and behaviors. The way this interaction is performed, interferes with the quality of both, relational dyad and training (Jowett & Poczwardowski, 2007). In the core of this dyad, is the focus of training, centered on the coach-athlete. This perspective, mutualist and inclusive, is extremely strong and solid, includes the whole process of practice and training and its effectiveness. The effectiveness and success, resulting from the training process, resides in both, coach and athlete, and in the relationship created by them, in the understanding that they both need each other, forming a unit that develops to success. It is this relationship that motivates, assures, satisfies, comforts and supports coaches and athletes to improve their sporting experience, performance and well-being (Jowett, O'Broin & Palmer, 2010). Lyle (2002) refers to training as an interpersonal process where athletes and coaches commit to each other and, therefore, the effectiveness of training can be more quickly understood by the quality of the relationships developed between athlete and coach.

Jowett and Shanmugam (2016), also define the dyad as a social situation: coaches and athletes are mutual and causally interdependent, the feelings, thoughts and behaviors of one affect the feelings, thoughts and behaviors of the other. The same authors have validated a modified version of the relationship quality model, commonly known as 3 + 1C's or 4C's: closeness, commitment, complementarity and co-orientation. Closeness, defined by affective and emotional meanings, brought to the relationship (e.g., respect, trust, empathy). Commitment, related to the cognitive aspect of the intentions of maintenance and evolution of the relationship. Complementarity, relating to the behaviors of affiliation, well-being and sense of competence between both, of the understanding related to the instruction (by the coach) and the execution (by the athlete). Co-orientation reflects

the level of interdependence in terms of similarity and understanding, regarding the quality of the relationship, and the sharing of a common vision.

Coe (1996) explained that, the perfect harmony between coach and athlete, provides the achievement of great accomplishments. However, not all coach-athlete relations are effective and successful. A negative approach of the coach can promote the development of an inadequate relationship with his athletes (Martens, 1987; Smoll & Smith, 1989). According to McCready (1984), coaches spend a lot of time and energy on objective tasks such as technical and administrative issues, of a more controllable nature. The task of creating a comfortable coach-athlete relationship is seen as ambitious and consisting of less controllable elements such as attitudes, feelings or motivations of both. Not considering the fundamental role, of a highly influential nature, of the coach-athlete's dyad in the training process, may mean the non-achievement of the athlete's maximum potential (Lyle, 1999).

The maintenance of a fruitful coach-athlete relationship is not an easy process, the quality of relations can weaken or vary over time and its stabilization implies time, effort and energy of both parties. The strategies used, in the sports context, to maintain the quality of the relationship, are based on the motivation for commitment to the objectives, based on performance improvement and satisfaction in practice. In a qualitative study conducted by Rhind and Jowett (2009), with the objective of investigating the perceptions of strategies to maintain the quality of the relationship of coaches and athletes, twelve interviews were conducted with coaches (four men and two women) and athletes (two men and four women), structured according to 4C's model. In this study, it was noted that about one third of the interviewees considered that, motivational strategies, play an important role in maintaining the quality of the coach-athlete relationship. The motivational strategy can be based on objectives related to the task or the ego (Nicholls, 1989). When the athlete has goals focused on the task, the perception of competence is based on personal development. When the objectives are focused on the ego, the perception of competence is comparative, particularly with direct opponents. The creation of motivational strategies, focused on the task by the coach, contributes to the development of a positive motivational climate and gains in the coach-athlete relationship. In another study conducted by Olympiou, Jowett and Duda (2008), aiming to investigate the motivational significance of the coach-athlete relationship in collective sports, two questionnaires were filled out by 591 English team sports athletes including football, rugby, volleyball, basketball and hockey. The results showed that, the perceptions of the athletes of their relationship with the coach, were highly associated with the motivational climate perceived by the athlete and created by the coach, proving the motivational significance of the coach-athlete relationship, reflected in the links with the task and the ego. The coach-athlete relationship is also linked to the degree of cohesion of a group. The satisfaction of the athlete's needs, the balance between the expectations they have of the coach and the perception of the current behavior of the coach, contribute to the cohesion of a team. The strengthening of the team's

cohesion is one of the factors contributing to coach-athlete compatibility (Chelladurai & Carron, 1981).

After the bibliographic review, we found that, in the mentioned studies, there are limitations, since, despite confirming the importance of the quality of this relationship in sports development and success, they do not identify common factors in the dyad that predict performance. The increasing importance attributed by the scientific community to this dyad and its influence on performance and sporting success, proven by the various studies presented, assures the validity and relevance of this study in the current context.

Purpose

The main purpose of our research is to study and understand the coach-athlete relationship, to explore the psychosocial and environmental factors associated with this dyad and how they influence sports performance. A qualitative study will be conducted, based on an interview with previously delineated questions, carried out separately, to a coach and an athlete in the sport of Trail Running. It intends to broaden the study conducted in this area and identify, in the interviews, the psychosocial factors existing in the dyad, as well as environmental factors fundamentally linked to the context of the relationship and the demands of the competition. In addition, to perceive, on the variables identified, which are the most relevant psychosocial factors for each of the elements of the dyad, and if, within these, there are factors common to both. Also contextualize with the adapted version of the quality model of the relationship $3 + 1C$'s of Jowett and Shanmungan (2016), confirming the existence of closeness, commitment, complementarity and co-orientation, in the relationship between the coach and the athlete participants in this study. Finally, we hope to find convergence of psychosocial and environmental factors identified by both coach and athlete, which are predictors of high performance and sport success.

Method

Participants

The participants selected in this study are a male coach and a female athlete of the individual sport of Trail Running. This choice was held, and supported, with the fact that they are subjects with proven experience in high-performance context, accustomed to high levels of competitive, personal and contextual exigency, as well as accurate perception of the issues of the coach-athlete relationship via the connection between the two. In this study we used pseudonyms Pedro and Adriana to, respectively, coach and athlete. The contacts, with each participant, were conducted personally and individually, by one of the elements of the investigation team. The interviews were recorded in audio format, in a quiet and closed environment, that of the coach in the residence of one of the elements of the group, that of the athlete in her own residence. This format promoted a comfortable and full-opening environment for both the interviewers and the interviewed. Both, coach and athlete, were described the purposes of our investigation, its scope and relevance, requested authorization for recording and guaranteed the

confidentiality of the data recorded in the study and the anonymity of the participants, which both accepted, and this acceptance is present in the audio recordings and in the transcripts.

Data collection and analysis

Data analysis was conducted with the application of a qualitative method, based on the interview recorded with each of the two participants. For the interview, a script was elaborated with eight previously established questions that allowed the approach on the themes of the relationship, competencies, sociocultural factors, structural factors, personality, emotions and behaviors. In practice, questions that substantiated and aimed to know/recognize the most important aspects of the coach-athlete dyad – psychosocial and environmental factors. Verbatim transcripts were performed guaranteeing the accuracy of the participants' speeches, in all their details, according to the model of Mergenthaler & Stinson (1992). After completion, the transcripts were read individually and independently by each of the elements of the investigation team, analyzed and reviewed until their accuracy was completed. In the preparation for the coding of the interviews, each of the elements of the team analyzed a wide range of scientific articles published and related to the theme, described in the references of this study, to familiarize themselves with the work carried out by the scientific community and its conclusions, and thus, be better prepared for codification. The codification was conducted, initially, individually by each of the elements of the group. All were presented at a later group meeting, in which they were submitted to consensus. The final coding was found with full agreement between the elements of the team.

Validation

The validation of the coding was conducted by individual consultation of the interviewed, in which they confirmed the themes and the variables identified. After the coding, the data were collected, and three tables were constructed with three distinct data groups. The first table, with the frequencies of the psychosocial and environmental factors identified. The second table contains the data corresponding to the frequencies of factors related to the quality of the relationship: closeness, commitment, complementarity and co-orientation. The third table was constructed with the macro variables, which were identified in the results of the first table (self-knowledge, competencies, motivation, proximity and context). The relative percentages of the variables present in each of the tables were calculated and the common factors were identified.

Reliability

In the qualitative analysis of the collected data, it was observed its consistency compared to the bibliographical review.

Results

The psychosocial and environmental factors identified in the coding of the interviews were gathered in table 1, and

Table 1.
Frequencies of the factors identified in the interview

	Frequencies					
	Coach		Athlete		Total	
	N	%	N	%	N	%
Affiliation	0	0.0	1	5.0	1	1.7
Ambition	1	2.6	0	0.0	1	1.7
Environment	3	7.7	3	15.0	6	10.2
Anxiety	0	0.0	1	5.0	1	1.7
Skills	6	15.4	0	0.0	6	10.2
Confidence	2	5.1	3	15.0	5	8.5
Conflict	0	0.0	1	5.0	1	1.7
Efficacy	0	0.0	1	5.0	1	1.7
Empathy	3	7.7	1	5.0	4	6.8
Mental requirement	2	5.1	1	5.0	3	5.1
Humility	1	2.6	0	0.0	1	1.7
Leadership	2	5.1	0	0.0	2	3.4
Maturity	1	2.6	0	0.0	1	1.7
Motivation	5	12.8	1	5.0	6	10.2
Multidisciplinarity	2	5.1	0	0.0	2	3.4
Objectives	1	2.6	1	5.0	2	3.4
Perfectionism	1	2.6	1	5.0	2	3.4
Performance	0	0.0	1	5.0	1	1.7
Resilience	2	5.1	1	5.0	3	5.1
Satisfaction	1	2.6	0	0.0	1	1.7
Success	1	2.6	0	0.0	1	1.7
Overcoming	1	2.6	2	10.0	3	5.1
Values	3	7.7	1	5.0	4	6.8
Vision	1	2.6	0	0.0	1	1.7
Total	39		20		59	

the absolute and relative values were recorded. The coding of the coach interview revealed a higher number of occurrences (39) than that of the athlete (20). Ten common factors were identified: environment, trust, empathy, mental demand, motivation, objectives, perfectionism, resilience, overcoming, values. However, there were significant differences regarding the relative frequencies of each of these factors, depending on whether they were from the coach or the athlete.

Environment

This factor was identified in 10.2% of the total data and had a higher importance in the athlete's values (15.0%) when compared to those of the coach (7.7%). The environment, the context, it is important for both because of the training conditions. For the athlete, especially about the time available to train. «I have already been part of the national team and ah, I am a public servant, I had to represent the country, I had to exchange my hours, exchange, because I had no hours to represent my country, much less to train.» (* Adriana).

Confidence

Confidence was mentioned 8.5% of times in total (trainer 5.1% and athlete 15.0%). The athlete essentially values the confidence in the coach and his method. The coach identifies it as a fundamental dimension to the process: «... The first value we have, which is fundamental is confidence.» Also, the athlete: «... confidence in training, which I think is of, quality...»

Empathy

Empathy, identified in 6.8% of the total data, has more balanced relative values between the coach (7.7%) and the athlete (5.0%). However, in absolute terms, it is identified three times in the coach, and only once in the athlete. The coach's ability to put himself in the athlete's position, to understand what her needs are and to work for her satisfaction, seems to be widely interpreted in this case. «... The main relationship you have to establish, which you distinguish is this relationship of empathy that you have with your athletes...» (*Pedro).

Mental requirement and resilience

The mental requirement was identified in total in 5.1% of the data. It is a factor with balanced values between coach and athlete, respectively 5.1 and 5.0% of the occurrences. It

is, alongside with resilience, with equal values, a dimension usually associated with the profile of an athlete of a sport such as Trail Running, demanding from the physical and psychological point of view. «... in my sport, a great mental demand is desired...» (*Adriana).

Motivation

This factor, with 10.2% of total occurrences, is particularly mentioned by the coach (12.8%) and less by the athlete (5.0% and only a reference in absolute value). The coach recognizes, in this way, one of the fundamental roles of his activity and in the coach-athlete dyad, as mentioned in the literature (Jowett & Nezlek, 2012). «... this ability also to accompany your athletes, to accompany them in order to motivate them, to leverage their motivations, their wills, their ambitions, is not it?» (*Pedro).

Objectives

Among the common factors, this is the least mentioned, with only 3.4% of the total. With only one reference at all, for both, coach and athlete, it is still an expected factor according to the literature. «... a focalization, ah in the goals, ah in common.» (*Adriana).

Perfectionism

Perfectionism is a factor that also occupies a position among the less mentioned with 3.4%. Associated by both with the rigor with which they face the work, it meets a preference for the focus on the task, more than in the ego (Nicholls, 1989). «... whenever I finish a race, I never think she ran perfectly...» (*Adriana).

Overcoming

Overcoming was identified in 5.1% of the total data. It is an important dimension for the athlete, identified in 10.0% of the times, the coach had only one occurrence, corresponding to 2.6%. While the coach recognizes the importance of motivating to overcome, to take risks, the athlete associates this factor by overcoming difficulties and evolving. «I have a capacity to turn over in the hard times.» (*Adriana).

Values

This factor, associated with the concept of self-knowledge and the development of the trainer's training philosophy, occurred in a total of 6.8% of the data. Although, from the relative point of view, the values of coach and athlete are approximate (7.7 and 5.0% respectively), in absolute number of occurrences is much higher from the coach side. It also associates the concepts of humility and ambition, values that together promote a new term that the coach calls *humbition*. Still from the viewpoint of philosophy, care for food, health and lifestyle. «I don't like it, you don't cheat, if you're in it, you have to walk for passion, so if you don't go out at night or if you don't smoke, or if you don't, if you're careful with your food, it's not the issue of giving up, it's your lifestyle, it's your philosophy...» (* Pedro). Another important aspect was the identification of factors not common to both, some of which were quite significant in the profile of each of the elements of the dyad. In the case of the coach, relevance to competencies, which, with 15.4%, was, of all, the most identified factor, leadership and multidisciplinarity, both with 5.1%. These three factors are definers of the profile of the coach, from the point of view of the qualities and competencies, reveals his instrumental, technical and practical side. «... the elite coach is an individual who has a

vast set of competencies to be able to answer...»; « ... is a concept of leadership, which goes through by hum motivating people, for bringing the best they have... <; <... nowadays knowledge is multidisciplinary...» (* Pedro). As for the athlete, affiliation, anxiety, conflict and efficacy, all with 5% frequency in the total data, deserve greater prominence in a set of factors identified and not shared with the coach. «... my anxiety control, as soon as the race begins, my anxiety decreases a lot, because hardly, not controlling anxiety, you can compete at high level.»; «... it was at that moment that I decided to leave this race, but that was never resolved in my head.»; «... in my sport, it is intended a great mental demand, a very high efficacy...»; «... I chose that coach...» (* Adriana). Table 3 gathered the factors in macro variables (self-knowledge, competencies, motivation, bonding, context and others only mentioned by the athlete). It was verified that, in relation to the coach, a greater number of variables related to self-knowledge (23%) and competencies (41%) were identified. In the case of the athlete, the most relevant variables were self-knowledge and bonding (both with 25%) and competencies (20%). Regarding the quality of the relationship in this coach-athlete dyad, the dimensions of closeness, commitment, complementarity and co-orientation were identified, according to the adapted version of the relationship quality model of Jowett and Shanmugam (2016). The absolute and relative frequency values were recorded in table 2. In contrast to psychosocial and environmental factors, there was a greater similarity between the absolute results obtained, 12 cases were identified in the coach and 11 in the athlete.

Closeness

With a total of 30.4% of the total data, this was one of the most present dimensions in the coding. Coach with 41.7% and the athlete with 18.2%, were the percentages of the elements of the dyad. «A coach of individual sports has this much richer relationship.» (* Pedro). «... There are also many good times, and all the phone calls of the coach, on the eve of the race, are, are excellent moments.» (* Adriana).

Commitment

Commitment was the dimension with the lowest frequency: total 13.0%, coach 8.3% and athlete 18.2%. «... it has to do

with your ability to, together with the athlete, to motivate yourselves...» (*Pedro). «... there is a total commitment to focus on goals.» (*Adriana).

Complementarity

This was one of the most frequent dimensions, 30.4% in total data, 25.0% in relation to the coach, and 36.4% in relation to the athlete. With close absolute values, coach and athlete give strength to the need to complement, in their competences, in the pursuit of common goals. «... This ability to make these challenges, to share these challenges...» (*Pedro). «... he guides my goals according to my characteristics.» (*Adriana).

Co-orientation

The co-orientation had a result of 26.1% of the recorded data. This dimension had the same absolute results for coach and athlete, both with three incidences. «... your ability to, together with the athlete, to motivate yourselves, to believe what they are doing, is not...» (*Pedro). «... I chose that coach, because the training methodology that he applies goes to meet the... of what I think is a training of, of quality, because I see some colleagues of mine with other methodologies and that, that I effectively do not, do not agree, nor could apply them with the life I carry.» (*Adriana).

Discussion

In this study, a wide range of psychosocial factors, reported by the subjects, were identified in both interviews. These factors were grouped into global variables for better interpretation and contextualization, as follows: self-knowledge, competencies, motivation, bonding and context.

Regarding the coach, the macro variable competencies was the one with higher number of references in the interview, of about 41%. With a very high value of references, the factors related to self-knowledge also had high results of 23%. These results confirm the results presented in the literature on the roles of the coach in the dyad, regarding aspects of mastery of competencies, vision and self-knowledge (Côté et al., 2007; Jowett & Nezelek, 2012; McCready, 1984). The results show the coach's concern about the most practical and instrumental issues of his domain, such as his technical skills, multidisciplinary and leadership aspects, as well as the philosophy of training, vision and values in the search to achieve the common goals.

The athlete, in her turn, makes a greater reference to the variables of self-knowledge and bonding with 25% of the factors, but also of competencies with 20% of the occurrences. The factors related to self-knowledge are relevant to the athlete, the references to questions related to values, philosophy and expectations of performance, in common with the coach, are important in the choice of the coach and the maintenance of their partnership, even in a case of a club change. This fact is also related to bonding factors, expressed through variables of confidence, affiliation and empathy. The results of the variables studied in the athlete confirm, and in agreement with the literature (Jowett, O'Broin & Palmer,

Table 2.

	Quality of the relationship					
	Coach		Athlete		Total	
	N	%	N	%	N	%
Closeness	5	41.7	2	18.2	7	30.4
Commitment	1	8.3	2	18.2	3	13.0
Complementarity	3	25.0	4	36.4	7	30.4
Co-orientation	3	25.0	3	27.3	6	26.1
Total	12		11		23	

Based on the adapted version of the Model of the Quality of the Relationship of Jowett and Shanmugam (2016)

Table 3.

Table of percentages of the identified macro variables

	Self-Knowledge	23%	Competences	41%	Motivation	15%	Bond	13%	Context	8%	
Coach	Objectives	1	Skills	6	Ambition	1	Confidence	2	Environment	3	
	Humility	1	Mental requirement	2	Motivation	5	Empathy	3	Total	3	
	Satisfaction	1	Leadership	2	Total	6	Total	5			
	Success	1	Maturity	1							
	Overcoming	1	Multidisciplinary	2							
	Values	3	Perfectionism	1							
	Vision	1	Resilience	2							
	Total	9	Total	16							
	Athlete	Self-Knowledge	25%	Competences	20%	Motivation	5%	Bond	25%	Context	15%
		Objectives	1	Efficacy	1	Motivation	1	Affiliation	1	Environment	3
Overcoming		2	Mental requirement	1	Total	1	Confidence	3	Total	3	
Values		1	Perfectionism	1			Empathy	1	Others	10%	
Performance		1	Resilience	1			Total	5	Anxiety	1	
Total		5	Total	4					Conflict	1	
									Total	2	

2010), the importance of the role of the coach, from the point of view of support, comfort, of putting himself in the role of the athlete, perceiving her expectations and work together for common goals and mutual satisfaction.

The factors related to the competencies variables, although with lower relative values, compared with those of the coach, also assume vital preponderance in the references of the athlete, proving her understanding that there is a set of qualities and capacities such as perfectionism, resilience and mental demand, fundamental to achieve the objectives and evolving, in the sport in question.

In this study it was possible to confirm in the dyad, the existence of the closeness, commitment, complementarity and co-orientation dimensions, from the adapted version of the quality model of the relationship of Jowett and Shanmugam (2016). We highlight, for different reasons, the closeness and co-orientation dimensions, the first strongest in the coach and the second equivalent for both, coach and athlete. While the athlete is more focused on the factors of result, performance and perfectionism, the frequent reference of the coach to the emotional and affective factors of the relationship (confidence, empathy), reveals his perception of the importance of these in the performance of his athletes. As for co-orientation, the similar values for both subjects, reveal a mutual understanding regarding the process and objectives, as well as a high level of interdependence. However, in the analysis of the athlete's interview, it was possible to identify a situation of conflict with the coach, although he did not have mentioned it: «... and it was at that moment that I decided to leave this race, but that was never resolved in my head.» According to the athlete, the situation was not resolved: «I think it is still, perhaps a conversation that, that I will go to him, when, when it will be time to give up...». In relation to this conflict the athlete does not know if she blames the coach for the instruction he gave her, she tries to understand why he did it, or still, if he is right, or if she apologizes him. Jowett and Poczwadowski (2007), refers that, in the context of the relational-coach-athlete, behaviors and thoughts of one influence the behaviors and thoughts of the other, so this conflict, if not perceived and resolved by both, may affect the quality of the relationship, weaken the bond, the long-formed dyad and, consequently, the athlete's athletic performance.

Study limitations and future research

The present study presents some limitations, particularly with the fact that the studied dyad reflects, firstly, a single coach-athlete link – a case study. Thus, future research should enlarge the number of dyads/participants. The presented dyad exists in a context of individual sport, in which the bonds created and the intimate knowledge of both individuals, is stronger and deeper. It is a relationship of a distinct nature from the one in the context of collective sports, in which variables such as the number of elements and quality of the group's elements, may influence the quality of the coach-athlete relationship. For this reason, it will not be possible to generalize the conclusions and extrapolate to different contexts from the one of this study. Future research should be conducted to establish the differences and the

common points on both individual and collective sports. In this study, the coach is a male subject and the athlete a female subject. What are the differences in the results, if any, if the coach and athletes' roles are represented by individuals of other genders? In future research, conducted with a larger number of subjects, it should also be considered to vary the genders on both roles, e.g. female coach/male athlete; male coach/male athlete; female coach/female athlete.

Conclusions

The aim of this study was to identify differences in the perception of psychosocial and environmental factors and in the quality of the relationship, in the coach-athlete dyad, in a context of individual sports. We conclude that, despite the existence of factors common to both subjects, the perception of their significance for the relationship is not equal. The results seem to suggest yet that, coaches, have a significant focus on competency variables, in the domain of the technical issues, but also keeping present that, their contribution for the success of the relationship and consequently sportive performance, goes beyond the instrumental aspect in the ways of motivations, leverage, leadership and bond. For their part, athletes, in addition to the competency variables, have a greater focus on bonding factors such as confidence, or self-knowledge factors such as overcoming. Despite confirming the existence of the dimensions of the adapted version of the quality model of the relationship 3 + 1C's of Jowett and Shanmugam (2016), the results suggest that the quality of this dyad, successful so far, may be affected by a problem of lack of communication, identified in a marker of unfinished business by the athlete in relation to the coach. According to Greenleaf et al. (2001), cited by Jowett (2005), the existence of conflicts in a relationship is inevitable, and the literature suggests the need for strategies to maintain the quality of the relational dyad. The results presented are consistent with the published literature review, reinforcing the previous studies and the decisive role of this dyad in sports performance. They demonstrate the need for further study to deepen this theme, produce more information that contributes to the establishment of stronger coach-athlete dyads and, consequently, more satisfaction and better performance.

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