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What makes up the Coach-Athlete Relationship?

by

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Abstract

The purpose of this study was to understand the coach-athlete relationship based on coaches' and athletes' perceptions. In order to do that, a new model, the Coach-Athlete Relationship Model (CAR) was designed, interviews were conducted and the initial stages of the development of an inventory (CARI) was undertaken and then the CARI was piloted to examine this type of relationship in England and Portugal.

Based on the CAR model, semi-structures interviews were conducted with sixteen dyads comprising of elite coaches and their athletes from Portugal (eight) and England (eight). The data was analysed qualitatively using both inductive and deductive analyses. The interview data revealed that coaches and athletes have different perspectives regarding a positive relationship; and varying attitudes towards Cohesion barriers, Compatibility, Commitment, Motivation, Co-orientation and Complementarity. Coaches believed that a positive relationship should be respectful and friendly however athletes believed that friendship and good communication were the best attributes. Regarding the Cohesion barriers, English dyads focused more on interpersonal barriers (such as lack of commitment, lack of trust) and Portuguese dyads focused more on structural barriers (distance, lack of time, education commitments). Concerning Compatibility, English dyads were more focused on the outcomes (goals) and Portuguese dyads on the relationship (do the personalities match?). Commitment was also perceived differently in both countries, for English dyads behaviours (travelling a long distance) demonstrated the level of commitment but for Portuguese dyads their attitudes (availability, dedication) demonstrated the degree of commitment. Extrinsic Motivation (achieving their goals) for the English dyads were the most important thing however for the Portuguese dyads, being part of a good environment motivated them more. The Co-orientation construct was also perceived in different ways, English dyads focused more on the drive and Portuguese dyads on attitude. And, regarding Complementarity, English and Portuguese dyads had different opinions regarding the sharing of beliefs, and long-time planning.

Based on the participants' interview responses, a diagnostic tool was developed, the Coach-Athlete Relationship Inventory (CARI). Initially the CARI had a total of 64 items, consisting of 8 constructs and used a 5 point Likert scale. Confirmatory Factor Analysis was used to refine and validate the scale. The data showed an excellent internal consistency and factorial structure. A total of 57 items survived this process. The validity

of this scale it was achieved in part by using the participants' statements from the interviews, and also, by aligning theoretically with the conceptual framework. This developmental stage also served as the first pilot and application of the CARI. The scale was made available online and was completed by 102 participants (54 from England and 48 from Portugal). A series of MANOVA analyses were undertaken to explore the differences between England and Portugal and correlations to explore the relationships between the major variables. The findings of this instrument were that, gender and age were not related, however, there were differences between the two countries and the nature of the relationship varies between countries.

The findings of this study have implications for our understanding of the coach-athlete relationship, as well as future coach-athlete relationship research and a useful new tool for all the coaches, athletes and researchers.

Academic Thesis: Declaration Of Authorship

I,Sara Almeida.....

declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

What makes up the Coach-Athlete Relationship?

.....

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. Either none of this work has been published before submission, or parts of this work have been published as: [please list references below]:

Signed:

Date:

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Personal Statement

I have always enjoyed watching and participating in athletics competitions at school but I never had the chance to actually practice that sport until one particular day. At the age of 18, in my first athletics class at University, my teacher, who was also a coach realized that I was faster than everybody else in my class. I was so thrilled to be doing sprinting sets that I didn't realize that I had any talent. At the end of the class he asked me if I was already a runner and invited me to join a group of athletes that were training in that track to see if I was any good. So I started training with that group and another coach. After one month I was invited to stay in that Squad as a sprinter. I was actually now an F.C. Porto sprinter. The best club in Portugal.

Since that day I did not miss a single day of training, and I was always the first athlete to arrive. I knew I was nowhere near the level of the other athletes but I had the most important things, a passion for running, dedication and commitment.

Since then I improved a lot, and achieved some good results, the best one was to be part of the most important Portuguese competition, the nationals. I know I would not have been able to achieve that without the two excellent coaches I had. Coach João Campos and coach Serafim Gadelho. Especially the later, Serafim, on top of being a wonderful coach is a friend for life. He taught me that a true winner is someone who stumbles but gets back to finish their performance, a true winner has a pure heart and is capable of making a magical moment just with their courage and determination.

I was an F.C. Porto sprinter for five years and alongside that I was involved in the athletics school, coaching the youngsters. After five years I finished my degree in Physical Education and Sports I have decided to go to the United Kingdom to continue my studies. I had to quit athletics as a professional runner but I still run every day, not to win a medal but because running is part of who I am today. Someone determined, committed, and that pushes herself every day.

Chapter One

Sport

"Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. It speaks to youth in a language they understand [and creates] hope where once there was only despair"

Nelson Mandela (2000)

The role of sport in society has been debated for many decades. Sport can cut across the barriers that divide societies, making it a powerful tool to support conflict prevention and peace-building efforts. When applied effectively, sport programmes can promote social integration and foster tolerance, helping to reduce tension and generate dialogue.

Sport is also a means of exchange and understanding among people of various backgrounds, nationalities or beliefs, and promotes expression beyond traditional barriers. The rules of the game transcend differences and inequality and help redefine success and performance. Through sport, people identify new role models in society. Researchers see sport as an arena of patterned behaviours, social structures, and inter-institutional relationships that holds unique opportunities to study and understand the complexities of social life (Frey and Eitzen 1991).

Increasingly we can see that sport is playing a large part in our society, because of that, there are a large range of companies seeing the value of investing money in certain sports, with the aim of associating their products to elite athletes. Companies like Adidas, Nike, Asics, and sport nutrition companies, sponsor everything, athletes, nutrition, coaches and doctors. However, in return they require outstanding performances.

So athletes are constantly striving to improve performance and searching for the winning edge. Scientists, coaches and athletes are constantly searching for improvements in performance by assessing methods that can enhance athletic ability (Singh 2016). As a result, athletes have become physically more powerful and athletic performances have continued to improve as training methods improved.

However, even though elite athletes have used every means they had to achieve those outstanding performances, often it was not enough, they needed something more. In this context the discipline of sport science has developed and been a large help to improve performances. In sport psychology, it became important to understand the athlete, the coach and also their relationship alongside with all the other important aspects to succeed.

Researchers in sport psychology, have focused predominantly on the relations between cohesion and performance in sports teams. However, in many sports such as athletics, the relationship-members operate on a one-to one basis, whereby the coach deals with each athlete separately. Therefore, this study set out to explore the unique relationship between the coach and individual athletes in athletics.

Athletics like other sports plays a positive role in uniting people from different social backgrounds in the support of their favourite team or athlete. This can aid people understanding and tolerance of each other. Another important factor of this type of sport is the strong relationship that binds the athlete and the coach.

Research Problem

Probably the most important interpersonal relationship in the sport domain is that formed between the coach and the athlete. Some relationships like, Michael Johnson and Clyde Hart, Inger Miller and John Smith, Carl Lewis and Tom Tellez, Steven Cram and Jim Hendley, Linford Christie and Ron Rodden are dyadic relationships that have established not only close relationships, but also successful partnerships in track and field athletics. Although there is no conclusive evidence to suggest that a causal relationship exists between the quality of the coach-athlete relationship and performance accomplishments, there is some evidence to indicate that successful relationships are likely to include positive interpersonal qualities such as trust, respect, commitment, and understanding (Jowett, Paull et al. 2005).

In an attempt to fill this knowledge gap, the dynamics involved between coaches and athletes have been identified in areas such as leadership, motivational climate and cohesion. However, the nature of the interpersonal relationship that coaches and athletes develop in the course of their athletic partnership has remained unchallenged conceptually and empirically. Also, less attention has been directed toward studying the two-way interaction between the coach and individual athletes. Yet, this approach would appear to have the greatest potential for assessing the qualitative dimension of coach-athlete

relationship. Therefore, this research includes the design of a new model to understand the Coach-Athlete Relationship (CAR) and the creation of a questionnaire that aims to be a diagnostic tool for coaches and athletes. The findings of this research will be very useful for all coaches and athletes of individual's sports and researchers. From a practical point of view, I develop a new model regarding the coach-athlete relationship (CAR), with the purpose of bringing them closer together, interacting beyond the technical instructions dictated by the sport.

Also, this study contributes to the growing literature in sport that highlights the importance of creating a positive and constructive interpersonal environment between coaches and athletes (Jowett and Chaundy (2004); LaVoi (2007); Poczwadowski, Barott et al. (2002)). This study also explores other important psychological concepts such as, emotional intelligence and transformational leadership. As with most aspects of social psychology, a variety of concepts and methods of research need to be employed when investigating interpersonal relationships, all of which have some advantages and some limitations. Answers will not come from a few studies, but rather the understanding of this area depends on the gradual accumulation of knowledge gleaned by multiple researchers looking at aspects of relationships in different ways. Thus, my aim with this research is to contribute a little more to the existing knowledge.

In conclusion, after all of this time in my review of the literature and my personal experience as a coach and athlete, I have begun to realize that some dyads were better able to focus on the pursuit of personal, as well as performance excellence and had built stronger, more meaningful relationships between them. Therefore, I hope my research will unlock this ability and contribute to the emerging study and the pursuit of personal and performance excellence, as well as the examination of the coach-athlete relationship.

Olympic Games

Achieving international and especially Olympic sporting success has become increasingly important to a growing number of countries. Both politicians and the media count medals as a measure for international success, despite the International Olympic Committee's protestation that the Olympic medal table is not an order of merit. Elite sporting success has frequently been regarded as a resource valuable for its malleability and its capacity to help achieve a wide range of non-sporting objectives (Berscheid, Snyder et al. 1989).

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Therefore, the aim of this study was to investigate the relationship between the coach and athlete in individual sports, namely elite individual sports. One way to do that was to compare a very successful country with another less successful. So England and Portugal were chosen. The reason for choosing these two countries was very simple, after comparing the results of both teams over the last couple of years in the most important event, the Olympic Games, I realised that Great Britain was one of the top three countries with best results, having a total of 191 Olympic medals, completely opposite to Portugal that only had a total of ten over the years.

Table 1 Overall Olympic medals

	Country	Gold	Silver	Bronze	Total
1	United States	311	238	188	737
2	Soviet Union	64	55	74	193
3	Great Britain	49	80	62	191
4	Finland	48	35	30	113
5	East Germany	38	36	35	109
6	Kenya	22	27	19	68
7	Poland	22	17	13	52
8	Germany	19	38	42	99
9	Australia	19	24	25	68
10	Sweden	19	21	40	80
34	Portugal	4	2	4	10

Olympic Games Rio 2016

Most recently in 2016 Olympic Games at Rio de Janeiro, 78 of 198 countries won an Olympic medal. Great Britain remained on the top three countries with more Olympic medals (67), and Portugal was in 78th place with only one medal.

Table 2 Olympic Games Rio 2016

	Country	Gold	Silver	Bronze	Total
1	United States	46	37	38	121

2	Great Britain	27	23	17	67
3	China	26	18	26	70
4	Russia	19	18	19	56
5	Germany	17	10	15	42
6	Japan	12	8	21	41
7	France	10	18	14	42
8	South Korea	9	3	9	21
9	Italy	8	12	8	28
10	Australia	8	11	10	29
78	Portugal	0	0	1	1

So to be able to understand the difference of these results and possibly help Portugal and also similar countries to improve their performance. This research will explore:

1. The nature of the coach-athlete relationship in Portugal and England
2. Create a research tool that can be used to examine the coach-athlete relationship.

History of Athletics: How everything began

The history of athletics has roots in human prehistory. The first recorded organized athletics events at a sports festival are the ancient Olympic Games. At the first Games in 776 BC in Olympia, Greece, only one event was contested: the stadium footrace and the first Olympic winner was Koroibos. In later years further running competitions have been added. Also in the Ancient Olympic pentathlon, four of the events are part of the track and field we have even today. The long jump, the javelin throw, the discus throw and the stadium foot race.

Athletics events were also present at the Panhellenic Games in Greece around this period, and they become known to Rome in 200 BC. In the middle Ages new track and field events began developing in parts of Northern Europe. The stone put and weight throw competitions popular among Celtic societies were precursors to the modern shotput and hammer throw events. Also the pole vault, was popular in the Northern European Lowlands in the 18th century.

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Modern competitions in athletics, took place for the first time in the 19th century. Usually they were organised by educational institutions, military organisations and sports clubs as competitions between rival establishments. In these competitions the hurdling were introduced for the first time. Also, in the 19th century the first national associations were established and organized the first national competitions. In 1880 the Amateur Athletic Association of England began organizing the annual AAA Championships.

The establishment of the modern Olympic Games in Athens at 1896 marked a new era for track and field. The Olympic athletics programme, comprising track and field events plus a marathon race, contained many of the foremost sporting competitions of the 1896 Summer Olympics. The Olympics also consolidated the use of metric measurements in international track and field events, both for race distances and for measuring jumps and throws. The events of track and field have been expanded in the following years.

In 1912 the International Amateur Athletic Federation (IAAF) was established, becoming the international governing body for athletics, having the amateurism as one of its founding principles for the sport. The first continental track and field competition was the 1919 South American Championships followed by the European Athletics Championships in 1934. In the 1928 Summer Olympics women competed for the first time. Furthermore, major athletics competitions for disabled athletes were first introduced at the 1960 Summer Paralympics.

From the 1960s, the athletics gained more exposure through television coverage. After over half a century of amateurism, the amateur status of the sport began to be displaced by growing professionalism in the late 1970s. In 1982 The IAAF abandoned amateurism, and later changed its name as the International Association of Athletics Federations. The following year IAAF established the World Championships in Athletics – the first ever global competition for athletics which became one of track and field's most prestigious competitions along with the Olympics.

The IAAF World Championships in Athletics became a fully professional competition with the introduction of prize money in 1997. Also in 1998 the IAAF Golden League increased the professionalism of athletics. In 2010, the series was replaced by the more lucrative IAAF Diamond League which comprises meetings in Europe, Asia, North America and the Middle East which are the first ever worldwide annual series of track and field meetings.

Current structure and organisations of Athletics in Portugal

The Federação Portuguesa de Atletismo (FPA) was founded on 5 November 1921, under the name "Federação Portuguesa de Sports Atléticos". FPA has its headquarters in Lisbon. It is an independent sport's governing body, of public interest, non-profit, ruled by their own code (Atletismo 2014).

The FPA organizes the Portuguese indoor and outdoor athletics championships. It has 21 regional associations, promoting and directing the practice of athletics, in men's and women's. In accordance with the International Association of Athletics Federations in which it is a member, it also organizes doping tests in official competitions (Atletismo 2014).

The bodies of the FPA, are elected at joint list in each Olympic cycle. The functional organization of this federation is:

- General Assembly;
- President;
- Direction;
- Jurisdictional Council;
- Supervisory board;
- Disciplinary Board;
- Board of judges.

In addition to the governing bodies, the direction of the FPA has an advisory body on technical issues, the Directorate National Technical, which is responsible for work on the technical development of the various categories and modes that athletics comprises the areas of high competition, national teams, youth development or regulations. This consists of:

- National Technical Director;
- National Coach;
- Technical Secretary;
- Training and Documentation;
- National Technical Development.

Current structure and organisations of Athletics in England

United Kingdom Athletics (UKA) is the governing body for the sport of athletics in the United Kingdom. It is responsible for overseeing the governance of athletics events

throughout the UK as well as athletes, their development, and athletics officials. UKA introduced the British Athletics brand in 2013 to act as the identity for athletics in the United Kingdom, while UKA continue in the role of governance.

UKA has four member organisations, one from each of the constituent countries of the United Kingdom:

- England Athletics,
- Scottish Athletics,
- Welsh Athletics,
- Athletics Northern Ireland

Being a coach in Portugal and England

In the last couple of years being a coach in Portugal was not recognized as a profession. In fact, it was thought that a pre-requisite to being a good coach was that one had to have been a good athlete. This view has progressively changed by the emergence of personalities that incorporate specific knowledge with obvious sports results. In the past not that many coaches had university education, leaving many with a basic knowledge of what it actually means to be a coach. In Portugal, since the beginning of the century, the process by which someone trained to become a coach was very tenuously associated with Universities (Almeida 2001).

Sports coaching has become increasingly demanding and complex, resulting in the need for improvement in the quality and strength of their training, being that crucial for a better intervention. And as a result, the coach profession started to be seen as a whole, and to have certain features, including a base knowledge, professional practice, unique skills, a career, a philosophy, ethics and a code of practice, requirements for exercise, evaluation of efficiency, and a professional association (Woodman 1993). The different sport organisations in Portugal wanted to follow this trend with the production of various legal documents required for coaches' training, whose concept is supported, by a greater intervention of the Portuguese State structure (at the time of the appearance of the National Institute of sport-IND), or a complete responsibility transfer to the federations of the design and organization of their coaches training, assuming the responsibility for financially supporting these initiatives.

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Historically, in England, sports coaching has been largely confined to 'grass-roots activity', prospering on the 'good will' of amateurs and volunteers. Up until the late 1960s and early 1970s, sports, and by implication their coaches, were seen as 'experts in the field'. The next ten years (1982) provided grants to governing bodies (GBs) for elite coaching and its development.

The following decade saw a more explicit focus on coaching. The GB Sports Council strategy Sport in the Community: The Next Ten Years (1982) provided grants to governing bodies (GBs) for elite coaching and its development. In the mid-1980s, the then British Association of Sports Coaches and the National Coaching Foundation agreed to formulate a 'think tank' to consider the future of coaching.

The structures of sports coaching in England are fundamentally voluntary in both culture and make-up. In the desire to professionalise the occupation, the systems and the coaches, inherent qualities such as mutual support and its own sense of belonging must not be forgotten. These actions bring forward and engender a sense of independence and social commitment and help to build and maintain webs of interdependence and mutual support (Bloom, Durand-Bus et al. 1997).

How much does the Portuguese Olympic coaches and athletes actually earn?

Unlike other countries such as the United Kingdom, Norway, Sweden and Croatia, that do not provide direct financial support their Olympic athletes, the Portuguese State supports the Portuguese Olympic Committee (Coppel) in the financing of projects for the preparation of each Federation, granting scholarships to practitioners involved in accordance with your sports level and providing funds for the costs of preparation with coaches, coaching staff and other services. For example, regarding the program of preparation for Rio 2016, as well as the Olympic Games of 2020 and 2024, the budget of the COP foresaw a fee of EUR 4,550,000. Each Portuguese athlete is entitled to a monthly Olympic scholarship to cover the costs of preparation. This scholarship amount varies depending on the athlete's level. If the athlete is on level 1 receives EUR 1 375, level 2 receives euro 1 100 and level 3 receives 900 euros. The coaches receive 80% of the value of the level at which is integrated the athlete that they're training. In case of accumulation of various athletes, the coach will receive 20% more for the second practitioner and 10% more for the third.

How much does England Olympic coaches and athletes actually earn?

Only a handful of British Olympic medallists will be able to secure short to medium term financial security off the back of their success. Indeed, the very fact that there are so many gold medallists these days has devalued its currency among sponsors. As an example, six-time Olympic gold medallist Jason Kenny's struggles to attract a personal sponsor demonstrates that perfectly. Hence all but the chosen few will go back to the next cycle of vicious training and living off what money they receive from UK Sport.

The primary role of UK Sport is to strategically invest National Lottery and Exchequer income to maximise the performance of UK athletes in the Olympic and Paralympic Games and the global events which precede them. Investment decisions are made on a four year basis wherever possible to cover a complete Olympic or Paralympic cycle but are focussed on an eight year performance development model.

Success is measured by the medals won, the number of medallists developed, and the quality of the systems and processes in place to find and support the nation's most promising future champions.

To achieve this UK Sport invests around 70% of its income through two channels:

1. Central funding for sporting National Governing Bodies (NGBs), enabling them to operate a World Class Programme (WCP) and ensuring athletes have access to outstanding support personnel and training environments to ensure they are among the best prepared in the world.
2. Direct to athlete funding in the shape of an Athlete Performance Award (APA). This award, which is solely funded by National Lottery income, is paid directly to the athletes and contributes to their living and sporting costs.

Typical starting salaries for newly qualified sports coaches working for local authorities range from £15,000 to £25,000, depending on location and qualifications. The typical salary range for senior coaches employed by National Governing Bodies (NGBs) or professional sports clubs is £30,000 to £35,000. Experienced coaches working at the highest level have the potential to earn in excess of £100,000. Hourly rates for coaches working with amateur teams or individuals start at around £10. Regarding coaches, in professional sport, they may earn a basic salary with additional bonuses related to

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competition results, prize money earned or standard of performance achieved. Packages may include company cars, medical insurance and other benefits.

The majority of sports coaches in the England are volunteers and less than a quarter of coaches receive payment for their coaching, while 70% are qualified.

Coach Education pathway in Portugal and England

Portugal

The National Programme of Coach Education considers the existence of four degrees of qualification:

Grade I- Initiation Coach

Grade II -Coach of young kids

Grade III-High performance coach

Grade IV-Coordinator/Technical Director of sports coach

The degrees of sports coach qualification considered above, aim to promote a progressive development of skills, which are characterized by the structure of their established professional profiles.

Table 3 Portuguese coach education pathway

DEGREE	MAIN DUTIES AND RESPONSIBILITIES
I	Direct governance of technical activities associated with the early stages of the participants' involvement in athletics, under the coordination of a coach with a higher qualification degree.
II	Conduction and orientation of the next stages of the sports. Coordination and supervision of a team of Coaches level I or II Conception, planning, conduction and assessment of the training and competition process.
III	Plan and assess the performance of a group of coaches with the same or inferior level of qualification.
IV	Coordinate, manage, plan, and assess a group of multidisciplinary technical teams. Direction of regional and national teams. Coordination of regional and national teams. Tutorials coordination.

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England

British Athletics follows a Coaching Development Pathway that is consistent with the Athlete Development Model; conforming to a general to specific training policy, which is progressive and logical. The current formal Coach Education Pathway from Leader to Assistant and Coaching roles reflects this transition. The England coach pathway education can be seen in Figure 1.

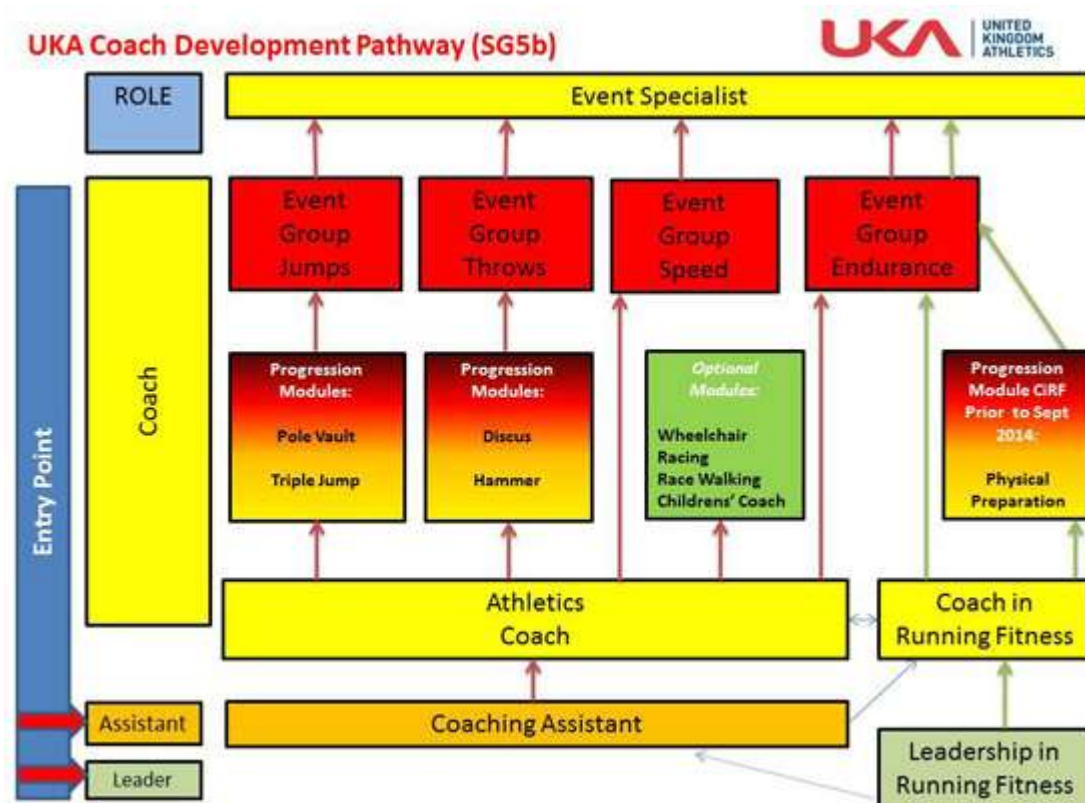


Figure 1 England coach education pathway (Athletics 2018)

Leader

Leadership in Running Fitness (LiRF)

The 'Leadership in Running Fitness' Award is aimed at anyone who has an interest in running for fitness and would like to lead a group. Although this award is not a Coaching Qualification, it does provide an entry pathway towards coaching qualifications. The award is a one-day attendance only course.

The course is designed to prepare you as a Leader. As a Leader, a key responsibility will be providing a safe and enjoyable running experience for people over the age of 12 of any

Chapter One

level of ability, age, size and shape. As a Leader you may be a member of an Athletics Club or Fitness or other sports club.

Coaching assistant award

The Coaching Assistant Award is the first step on the coaching ladder. The course is primarily aimed at adult athletes, ex-athletes, and parents.

The Coaching Assistant Award becomes more technical and includes information on movement and mechanical principles underpinning run jump throw activities; once qualified Coaching Assistants will be able to operate in a club environment supporting a Supervising Coach.

Coaching awards

There are two different coaching qualifications available:

- Athletics Coach (for Track and Field Club Athletics)

Coach in Running Fitness (for road running participation)

- Athletics Coach Award

This is the cornerstone of the Coaching Qualifications Programme. The qualification will take three days to complete and requires one day of formal assessment.

Chapter Summary

In summary, the results of this study will offer an insight into the role and significance the coach-athlete relationship. Coaches' and athletes' perceptions of each other's and their relationship play a key "motivational" role in how well they understand each other. Reflecting on these types of relationship and their potential practical implications, it was thought that, research that aims to uncover important antecedent and consequent variables of empathic accuracy was necessary. So therefore, establishing causal relationships between all the variables mentioned above would be beneficial for theory building and intervention research that could involve such ideas as facilitating communication between coaches and athletes or improving the quality of their knowledge of each other.

Chapter One

This study was divided into seven chapters. The next chapter provides a review of the literature, chapter three explains the methodology that was used on the qualitative part of the study and describes the conceptual framework and model development. Chapter four is divided into two parts. Part one outlines a mixed methods philosophy and research design and why it was chosen. Part two provides a step by step explanation of the collection and analysis procedures. Chapter five includes the interviews' analysis. Chapter six reports the findings of the analyses for stages 3 & 4 and the last section, chapter seven consists of a discussion of the issues arising from the study.

Chapter Two

Literature Review

Introduction

Theoretical work in coaching by Aliaga and Gunderson (2000) has highlighted the reciprocally interactive nature of the coaching process, whereby interactive behaviour by the coach or the athlete influences subsequent behaviours by the other and thus the overall path of interaction. Neither coach nor athlete act as an independent unit but are instead highly interdependent in their behaviour over time. In order to understand the coach-athlete relationship and the way they interact and perceive their relationship Aron, Aron et al. (2001) suggested shifting from a focus on the individual to the coach-athlete relationship dyads as the central unit.

Empirical research about the coach-athlete dyad has been growing in completely different sports, such as swimming (Antonini Philippe and Seiler 2006), hammer throwing and rowing (Macquet and Stanton 2014), tennis, badminton, rowing and beach volleyball (Jackson, Dimmock et al. 2010). In this line of development, the aim of this study is to contribute even more to the growing literature of the coach-athlete dyad in athletics.

Therefore, this chapter consists of a review of literature on the development of research in interpersonal relationships in a sports context. Likewise on the main participants, the coach and the athlete as a unit, the interpersonal relationship between them and also an overview of the variables that were thought to be relevant in the coach-athlete partnership. In terms of structure, following the introduction, some relevant issues were approached, like the importance of the coach and the athlete and all the predictors that were thought to be important to explore in different perspectives this type of relationship.

Relationships

Initially it is important to understand what is the meaning of a relationship? For many people, relationships with others are one of the most important aspects, if not the most important aspect of life. They are often associated with our greatest feelings of happiness and when they go wrong, they can cause heartache and pain. But, what are relationships? According to Boardley, Kavussanu et al. (2008), pp 127 relationships are, “*a regular social encounter over a period of time*”. This interpretation captures some important aspects of

relationships, they occur over a period of time, although some are much shorter than others. They involve regular contact or interaction between two people. This study will focus in interpersonal relationships, more in particular the coach-athlete relationship.

Furthermore, close relationships have special emotional and motivational significance (SM. and S. 2002). Our sense of well-being often depends on others and they provide a basis for our beliefs and values. Being known and understood (having shared perceptions) forms the backbone of lasting satisfying relationships buffering relationships from conflict (Gordon and Chen 2016).

The coach

“The coach must never forget that he is, first of all, a teacher. He must come (be present), see (diagnose), and conquer (correct). He must continuously be exploring for ways to improve himself in order that he may improve others and welcome every person and everything that may be helpful to him.”

John Wooden (2005)

A coach can be many things to many different people. A coach is a teacher, a mentor, a role model, sometimes a friend and a confidant. But the coaching process is very complex. The learning process of a coach fails sometimes due to overly focusing on sport specific knowledge (Cushion, Armour et al. (2003) & Saury and Durand (1998)). The learning process is commonly built under a classroom-based curriculum, which means that the main goal is to convey concepts and theory leaving practical issues behind of the coach setting (Erickson, Coté et al. 2007). Therefore it is assumed that coaches learning is an individual process .

Indeed, in training courses, coaches participate as individual elements, where cooperation and interaction are often neglected, and these courses correspond to a precise number of credits or hours provided in the classroom context, or on a practice field, being the evaluation a single test (Culver and Trudel 2008). This means that the soft skills are being neglected. Although, coach education programmes (CEP) are perceived by coaches as a

great contribution to the dissemination of the scientific principles of coaching even if the skills related to the art of coaching, such as communication and pedagogy, are missed (Dickson (2001), Jones, Armour et al. (2003)). Moreover learning from experience is considered to be crucial for coaches' development, where interaction among coaches play an important role since coaching is a complex social encounter (Jones, Armour et al. 2004). Due to this complex learning process, some coaches become exceptional and others are just regular coaches.

Sport and fitness coaching is an art as well as a science and a great coach needs to know more than just the rules of the game. Great coaches also know how to communicate with players in a way that gets results on the playing field. The goal of great coaching is to guide, inspire and empower an athlete to realize and develop his or her full potential (LaVoi 2007).

Taking the time to reflect on why is the coach so important, not only for personal growth but also in creating an awareness of changes in athlete's motivation. The sports psychology literature contains many recommendations regarding the types of coach behaviour conducive to positive athlete experience, perception and performance. Therefore influencing coach behaviour is critical in the optimization of the athlete learning environment.

Research (Mageau and Vallerand 2003) suggest that coaching for intrinsic reasons (love, joy, passion) is associated with better outcomes. These outcomes include the health and wellbeing of the coach, and improved coach–athlete relationships, athlete motivation, satisfaction and performance. Some aspects of coaching, however, are not always intrinsically interesting or motivating, and this can influence motivation. For example, when winning or approval becomes the primary reason for coaching, this can have detrimental effects on both coaches and athletes alike.

Moreover, burnout and turnover among professionals is linked to a lack of motivation (McLean, Mallett et al. 2008). The ability to regularly monitor changes in the quality of motivation may be important in the prevention of poor performance outcomes within elite sport. Therefore being aware of changes in coaches' motivation, particularly regarding a lack of interest, hopelessness or loss of desire to coach, can assist in early detection of a lack of motivation and the negative consequences, such as burnout, that accompany it.

McLean, Mallett et al. (2008) conducted a study of coaches from a range of sports and competition levels and looked at common reasons for coaching. While coaches had different priorities depending on the performance level of their athletes, it appeared that even in high performance sport contexts, the detrimental effects of being driven by external factors (such as competition success or peer admiration) were not as apparent if paired with an intrinsic love for their chosen sport and coaching.

Therefore, coach motivation plays a crucial role in the facilitation of a healthy coaching environment, both physically and psychologically. Working in an environment that supports coaches' needs will help them to get the best out of themselves as well as their athletes.

According to Damásio and Serpa (2000), the question around the "good coach" is relevant but also very controversial in nowadays. In this article they tend to say that there is no excellent coaches, or coaches with model behaviours. What does exist are coaches that adequate their behaviours to specific situations. But all the coaches that are good have to have some particular qualities.

Table 4 Qualities of a good coach (Damásio and Serpa 2000)

KNOWS THE SPORT	To be able to teach effectively the coach must have in-depth understanding of the sport from the fundamental skills to advanced tactics and strategy. Coaches may have experience playing, but not all former players make good coaches. Coaches must plan for the season, know the progressive nature of training adaptation, know the rules, and provide a simple, structured environment for athletes to succeed.
SEEKS OUT NEW INFORMATION	While a good coach knows a great deal about a sport (s) he must continue to learn and develop new training techniques. Staying up to date of new research, training and rehab information, attending coaching clinics, camps, and seeking out tips from elite coaches and athletes is a sign of a great coach. Watching videos, reading books, studying periodicals can also be helpful. Attending university classes in sport psychology, nutrition and exercise physiology is a great idea and is readily accessible for any coach who wants to grow and improve.
IS A MOTIVATOR	The successful coach is a motivator with a positive attitude and enthusiasm for the game and the players. The ability to motivate and inspire is part of the formula for success. Getting athletes to believe in themselves and achieve come far easier from some coaches than others. The coach who can motivate is able to generate the desire to excel in their athletes. Motivation may mean keeping the practice fun, fresh and challenging. When motivating a player, a good coach stresses trying to reach performance goals, not outcome goals. A coach should make sure that players understand that you can completely control your own effort and training, but can't control what your opponent does or the outcome of every match.
KNOWS THE ATHLETE	Being aware of individual differences in athletes is also an important ingredient in coaching excellence. Yelling, screaming, and other emotional displays may work for some athletes but could have a devastating effect on others. Individualizing communication and motivation to specific players is key to team success. Paying

	attention to the player's emotions, strengths and weaknesses are the responsibility of a good coach.
IS AN EFFECTIVE COMMUNICATOR	The effective coach is a coach who communicates well and exudes credibility, competence, respect and authority. A coach should be able to explain ideas clearly. Clear communication means setting defined goals, giving direct feedback and reinforcing the key messages. Acknowledging success is also essential for good communication.
IS A GOOD LISTENER	Part of communicating effectively is listening. A coach should be a compassionate ear and should welcome the players comments, questions and input. The effective coach will seek out information from the players. Finally, the good coach will be flexible and will use player feedback to modify the training plan if necessary.
IS DISCIPLINED	Athletes need to adhere to a reasonable set of rules both on and off the field and if these are ignored the coach is responsible for discipline. The effective coach clearly states a code of conduct up front and adheres to it. When violations do occur, discipline should follow. Evidence supports that for discipline to effectively change behaviour, it must be mild, prompt, and consistent.
LEADS BY EXAMPLE	The effective coach also leads by example. A good coach adheres to the same rules (s)he expects of the players. A coach who wants respect should also show respect. A coach who expects players to remain positive needs to display a positive attitude. A coach who wants athletes to listen will also listen to the players.
DISPLAYS COMMITMENT	The best coaches are in the profession because they love it. Besides being strongly committed to the sports and success the best coaches display a clear commitment to looking out for the best interest of the individual players.

Leadership

One of the most important qualities of a coach is to be a leader. Every coach, should be a leader for their athletes that is why it is so important to choose the style of work which could positively impact athletes' successes. In everyday communication it is important to understand each other to cooperate more efficiently. One of the main tasks of the coach is not only educate athletes technically, but share with them willingness to act, or to motivate them. So leadership of the coach is closely related to his/her emotional intelligence (EI) (Kima, Khonb et al. 2016). EI is a leadership skill to manage one's own and other people's emotions on the base of understanding them. The significance of the ability to understand other people, to anticipate their behaviour and to manage it was stressed by many well-known researchers of the 20th-21st centuries (Mayer, Salovey et al. (2004) Zeidner, Matthews et al. (2009) Hughes, Patterson et al. (2005)). Individual differences in the development of EI have been recognized (Hughes, Thompson et al. 2009). Nowadays EI has become not only a nice metaphor, but recognition of the sum of cognition and emotion as a single feature. It is obvious that the inability to understand and manage other people's emotions as well as your own ones is a reason for making mistakes in communication,

which leads to ineffective cooperation. Modern life and modern sports are so closely connected that the relation of EI and leadership becomes of great interest in Sports. An emotionally intelligent coach can clearly see the relationship between the personality traits and type of communicative behaviour and is able to form a high potential team in terms of its ability to perform in the competition (Kima, Khonb et al. 2016). An emotionally intelligent coach can clearly see the fact that individual differences of team members can result in problems in mutual activity. To create a proper psychological climate in the team, to develop an athlete's mastership, a coach has to reflect his/her own strengths and weaknesses, have good impulse control, especially under conditions of failure, rejection, aggression. Personality traits of sportsman and coach in their complex relationships could reveal themselves in a quite different way – assisting or hindering the performance under stress, assisting or making any conflict resolution difficult etc. The whole atmosphere in a team depends on the coach who is responsible for establishing psychological contact with all team members, for objective evaluation of everyone. The coach plays a central role both in preparation for the event and during the competition and it is of great importance which ways, or styles he/she used to employ (Kim 2007). The coach should be able to switch from one style to another according to the situation.

In Daniel Goleman's theory of leadership there are six leadership styles (Goleman, Boyatzis et al. 2013). These six styles reveal themselves in coach activity in specific ways.

1. The visionary style means that the coach motivates, supports an athlete, shows the goal but not ways of achieving it, giving an athlete an opportunity to solve the problem in his/her own manner. He/she provides feedback rather than helps with solving specific problems. He/she considers temporary failures goals with tolerance perceiving them as short-term features, supports and motivates an athlete, always keeps in mind the athlete's value orientations.
2. The coaching style is focused on an athlete's personal development, always keeps the dialogue with him/her, provides feedback, trusts his/her abilities.
3. The affiliative style is helpful in a team when moral spirits and mutual understanding is to be raised up. The coach works on long lasting atmosphere in the team, 'emotional capital', which he/she could rely upon in difficult moments. The coach focuses on emotional needs more than on business.
4. The democratic style works the best when fresh ideas from the team are needed. The coach actively involves team members in decision making during practice and

during preparation for the competition. He/she always asks for other people's opinion.

5. The pace-setting style coach is involved in goal achieving much more than in human problems. He/she has high criteria of performance, is intolerant to low performance, is eager to do everything himself instead of his student, is ready to do make up job, and is an expert in the field but shows no wish to cooperate.
6. The commanding style coaches clearly show further direction in urgent situations. They demand immediate performance of their requirements without any explanation and stay focused on weaknesses rather than strengths

Leadership is one of the most discussed and debated topics in the social sciences (Avolio, Sosik et al. 2003). Research on leadership began with a search for heritable attributes that distinguished leaders from non-leaders and explained individuals' effectiveness as leaders. In effect, the early research was the beginning of the trait paradigm of leadership research. Subsequent several leadership theories emerged as it can be seen in the table below.

Table 5 General theories of leadership - Source: (Leadership 2017) - CISL analysis

Theory/School	Description
GREAT MAN OR TRAIT SCHOOL	Celebrates outstanding individual leaders (in the heroic tradition) and studies their traits or characteristics to understand their accomplishments as leaders.
BEHAVIOURAL OR STYLES SCHOOL	Describes leadership in terms of people- and task-orientation, suggesting that different combinations of these produce different styles of leadership
SITUATIONAL OR CONTEXT SCHOOL	Emphasises the importance of context in shaping leaders' responses to be more relationship or task motivated, or more authoritative or participative.
CONTINGENCY OR INTERACTIONIST SCHOOL	Proposes that leaders' influence is contingent on various factors (like positional power), which in turn determines appropriate leadership styles
TRANSACTIONAL OR TRANSFORMATIONAL SCHOOL	Contrasts leadership as a negotiated cost-benefit exchange and as an appeal to self-transcendent values of pursuing shared goals for the common good.

One of the most important theories within the sport setting is the Transformational theory.

Athletes will follow a person who inspires them. A person with vision and passion can achieve great things, and this is explained by Transformational leadership. The primary

purpose of this section is to apply knowledge gained from empirical research on transformational leadership to assess the extent to which transformational leadership can enable a better understanding of psychological factors within sports.

What is transformational leadership?

Transformational leadership describes four leader behaviours that have been shown to influence followers' values, needs, awareness and performance (Kramer 2007). These four behaviours are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.

Despite its widespread in organizational psychology, the empirical exploration of transformational leaders in sport is relatively recent. The table below aims to show the empirical research in sport transformational leadership that has been done so far.

Table 6 Empirical investigations of transformational leadership in sport contexts

Empirical investigations of transformational leadership in sport contexts	
Reference	Dependent variable
Zacharatos et al. 2000	Adolescent leadership effectiveness
Charbonneau et al. 2001	Athlete performance
Rowold 2013	Coach effectiveness
Beauchamp et al. 2007	Self-efficacy
Callow et al. 2009	Team cohesion
Tucker et al. 2010	Player aggression
Arthur et al. 2011	Follower effort
Lee et al. 2013	Organizational, citizenship behaviour
Vella et al. 2013	Athlete development experience
Vella et al. 2013	Positive developmental experiences
Smith et al. 2013	Team cohesion
Price and Weiss 2012	Perceived competence, enjoyment, intrinsic motivation, task and social cohesion, collective efficacy
Stenling et al. 2014	Well-being

Cronin et al. 2015	Task cohesion
Kao and Tsai 2016	Athlete satisfaction
Bormann et al. 2016	Athlete performance

Understanding why some coaches are better at motivating their athletes is of paramount importance for sport relationships. A great coach is not easy to find and requires a very unique set of talents and skills. It is unlikely any one person will excel in all areas, but a good coach will have many of these qualities as well as a strong code of ethics.

The athlete

There has been considerable inconsistency in the definition of elite/expert athletes in sport psychology research, which has implications for studies conducted in this area and for the field as a whole (Swann, Moran et al. 2015). Research on expertise is now a “hot topic” in psychology. To illustrate this trend, expertise has attracted distinctive methodological approaches (e.g. Ericsson and Towne (2013), Ericsson and Ward (2007), Reisberg, Ericsson et al. (2013), _ENREF_57Journal of Experimental Psychology: Applied (Ericsson and Williams 2007) and Journal of Sport & Exercise Psychology (Williams and Ericsson 2008)).

Swann, Moran et al. (2015) defined an elite athlete, based in three main themes to judge the validity of elite athletes within their sport, and two further themes which can be used to determine validity of sport expertise across sports.

- Athlete's highest standard of performance: Athletes involved in talent development are by definition considered to have the potential to reach the highest standards in their sport.
- Success at the athlete's highest level as well as performance standard, the athlete's level of success was also a valid indicator of their expertise. For example, nine samples of athletes had won titles or medals, or held records, at international level e six of which were in major international tournaments such as the Olympics or World Championships. National titles also suggest that the athlete has achieved a certain amount of success in their sport, and corresponding to the levels/ tiers of performance standards described above, success at regional, university, or 4th tier level is likely to be the lowest validity of defining sport expertise.

- Experience at athlete's highest level. The amount of experience the athlete had at their own highest level was a further indicator of eliteness, although not to the same extent as the two themes described above. For example, athletes who have competed at regional level for an extensive period of time should not be considered equal to those who have competed at the highest international level for a limited period of time.

Professional athletes sacrifice time that could be spent with their family and loved ones. Nobody said being a good athlete would be easy but all great athletes make sacrifices. Elite athletes also find time to train hard, work on their skill and do whatever else is necessary (Warren 2017).

How people deal with adversity is a true measure of character. Good athletes know how to deal with adversity. They possess the determination to overcome road blocks and obstacles because they understand the bigger picture. Good athletes are highly motivated from within. They understand the importance of practice and constant hard effort.

According to Brown (2003), the Director of Proactive Coaching a great athlete has to have some important qualities.

Table 7 Qualities of a good athlete (Brown 2003)

CONFIDENCE	An athlete displays a quiet inner confidence based on preparation, their own and that of their teammates. Confidence is a belief based on their daily work habits and constant progress. This kind of confidence is contagious within a team, built as athletes subject themselves to tough challenges and practices and see the value in hard work. These athletes develop a “go for it” mentality, become unafraid of failure, and remain confident in “rough waters”. They prepare hard every day. When success follows, athletes tell you it is because of the effort they put into preparation. The non-athlete has a false confidence, not built on preparation but on factors they don’t control. An average athlete does not put the same effort or attention into practices as do the athletes on the team.
TEACHABLE SPIRIT	Athletes want to learn and improve. They bring an enthusiasm for “continuous improvement” every day. They know that correction happens because a coach sees potential in them to get better. They have learned to take correction as a compliment and look at correction as an opportunity to improve. The athlete responds to correction with verbal and physical cues that they are listening and learning. The non-athlete looks at any correction as criticism, and often responds with an excuse.
PRIDE	The pride of an athlete is a shared one. It is found in the “shared joy of the inner circle”, a feeling among team members that no one on the outside can understand. Shared pride involves a desire to become as good as possible for themselves and for their group of teammates. It involves unselfishness, and accountability. Team pride is

	<p>developed in parts of the game that require more effort than skill, where determination is more important than talent. The pride of a non-athlete is self-oriented, often selfish. Such athletes often develop a “sense of entitlement”, where they think athletic skill should guarantee special treatment.</p>
ACCOUNTABILITY	<p>The athlete is responsible and demonstrates it when they take personal accountability for what happens to them. When things are not going well, they look at themselves first to see where they can act to make a difference. They become a problem solver, better able to cope with stress and more likely to persevere when facing difficulties. They realize that “they are either getting better or getting worse”, that if they are not making steady improvement, they are losing ground to those athletes who are. The non-athlete blames everyone but themselves when things do not go well. They often fix their focus on things they cannot control rather than those they can.</p>
COMPETITIVE PERSEVERENCE	<p>The great athlete and great teams are not deterred by bumps in the road. Since they are committed to continuous improvement, they can recover quickly from a mistake and refuse to remain discouraged. Positive, competitive, persevering athletes are “mentally tough”, a quality that allows an individual to remain confident, enthusiastic and positive. Athletes, who are mentally tough, simply cannot have their spirits broken. They can lose to an opponent ten times and look forward to the next rematch. They welcome challenges and look forward to the toughest competitions as tests of themselves. A non-athlete is easily discouraged and allows yesterday’s failures and disappointments to interfere with today. Non-athletes are unable to recover quickly from mistakes.</p>
DISCIPLINE	<p>This is nothing more than focused attention and effort. To be successful individually or collectively, sacrifices involving discipline (“focused attention and effort”) are required. Great athletes not only accept discipline, they embrace it for the benefit of the team. They have the strength of character to overcome temptations and pressures and will do what’s right for their team at the moment of truth. Discipline is exhibited by attentiveness, enthusiasm, sportsmanship, respecting authority and personal responsibility. Because they display “athletic integrity”, disciplined athletes are better teammates. They are reliable and trustworthy, are always there for their teammates. For a team, discipline can be the characteristic that sets them apart and gives them an edge. The non-athlete chooses self-indulgence (“I’ll do what I want!”) over self-control and only thinks of discipline in terms of punishment.</p> <p>Accepting discipline (“focused attention and effort”) is a positive form of teamwork.</p>
TEAM FIRST	<p>Teamwork is a rare gift that allows ordinary people to attain extraordinary results. The process of becoming a good teammate is a decision based on attitude, specifically the choice of interdependence over independence. The athlete intentionally puts the needs of the team ahead of himself. He will NEVER LET his TEAMMATES DOWN. A great athlete understands that everyone on a team can have different roles that together can make the team stronger. On a great team all roles have equal value, and great teams are made up of athletes who have given up the quest for individual glory, who willingly and wholeheartedly commit themselves to the team effort. Sports provide many individually satisfying memories, but for the true athlete, nothing can compare with the memories built from being part of something bigger than themselves. The non-athlete is a selective participant, looking to satisfy their own needs first by being selfish with their effort, attention or behaviour.</p>

To be an elite athlete is a rare combination of talent, hard work and the right psychological profile. In sports today, everyone knows the best training methods, has access to the best facilities and most nutritional foods. Often the difference between the good and the elite is the mental qualities of the athletes.

Chapter Two

A study with coaches of Dutch top level athletes (N = 115) ranked elite athletes' psychological characteristics relevant for athletic performance. Various sports were involved: judo, speed skating, swimming, table tennis, field hockey, golf, and track and field. While low inter rater agreement among coaches within a sport suggested that coaches do not rank the various psychological characteristics in an identical way, but they appeared to agree on the importance of the following five psychological characteristics: self-confidence, will to win, concentration, persistence, and competitiveness (A. 2006).

Coach-Athlete Relationship

"Today I lost my mentor, my friend, my coach, John Wooden."

Walt Hazzard (2010)

The coach-athlete relationship has attracted growing attention from sport psychologists (Jowett and Cockerill (2003); Jowett and Wylleman (2006); Poczwadowski, Barott et al. (2006)). This surge of research may be due to the recognition that the coach-athlete relationship is a crucial antecedent of athletes' optimal functioning (Jowett (2007); Jowett and Cockerill (2003). Therefore it becomes important to identify the psychological factors that allow coaches to develop high quality relationships with their athletes.

Within competitive sport, the coach-athlete dyad has been viewed as central to successful coaching. Successful coaching can be reflected in coaches' and athletes' manifested levels of performance accomplishments and personal satisfaction (Lyle 2002).

The quality of the relationship coach-athlete dyads develop forms an important medium through which coaches' and athlete's needs of competence as well as belongingness are expressed and ultimately fulfilled (Jowett 2005).

In any elite sports, it is important to know what information is understood by athletes and coaches, in order to help athletes improve their performance (e.g., R. Lorimer and S. Jowett (2011)). The coach and athlete may interpret the situation in which the athlete is involved and athlete's behaviour differently.

In light of concerns about relationship research in sport and exercise setting originally expressed a decade ago, the idea for a special issue grew out of an invited symposium on “Relationships in competitive sports” held in 2003 FEPSAC XI European congress of Sport Psychology in Copenhagen.

The essential purpose of this congress was to highlight the extent to which interpersonal relationships in sport and exercise settings have gained momentum in current research whilst encouraging its further development. One year later, in 2004, a call for papers on this particular subject was followed by a positive and enthusiastic response from established and young scholars working in the field. Six high quality articles and a brief report all of which contain diverse relationship topics and methodologies. The first article by Artur Poczwardowski, James Henschen and Sophia Jowett present a methodological strategy for the exploration of the coach–athlete relationship. Although the article concentrates largely on the coach–athlete relationship, the discussion can easily be transpired to other interpersonal relationships in sport and exercise. Among other important issues. They demonstrate through their own and others research the benefits that can be achieved by considering different levels or units of analysis (e.g. individual and interindividual) and theoretical frameworks.

The second article by David Shepherd, Bervyn Lee, and John Kerr proposes a theoretical framework specifically tailored to examine the processes involved in interpersonal relationships (e.g. athlete–athlete, coach–athlete, parent–athlete) formed in sport and exercise contexts. These authors explored the manner to which reversal theory could be employed to explore interpersonal problems. The remaining four articles and a brief report were empirical in their nature. First, Roberta Antonini Philippe and Roland Seiler report on a study regarding the content and quality of the coach–athlete relationship as viewed by Swiss elite male swimmers. In a qualitative study, these researchers employed the 3 Cs conceptual framework (closeness, co-orientation and complementarity) to guide their exploration and found that elite male swimmers experience a high degree of closeness with their male coaches which is underlined by positive feelings of respect, admiration, appreciation, and affection; a high degree of co-orientation which is reflected in open channels of communication that contain both technical instruction and personal information all of which contribute in establishing shared views and goals; and a high degree of complementary behaviours such as positive, co-operative interactions based on rules, roles and responsibilities that are not necessarily similar but more often

corresponding. The next two papers focus on peer relationships and motivational indices. Spiridoula Vazou, Nikos Ntoumanis and Joan Duda view athletes' perceptions of interactions with peers and coaches from an achievement goal theory perspective. Vazou et al. focus on the additive and interactive influence of perceptions of the peer- and coach-created motivational climates on motivational indices such as physical self-worth, enjoyment, trait anxiety, and effort. Their results reveal that peers and coaches independently and together affect young athletes' motivation. Sarah Ullrich-French and Alan Smith explore the manner to which youth soccer players' perceptions of their relationships with peers (peer acceptance and friendship relations) and parents independently and in combination predict motivational outcomes in sport. Ullrich-French and Smith's findings suggest that considering the combined influences of peer and parent relationships are important to fully understand the impact of relationships on motivation in youth sport. Finally, Nicolas Fontayne, Paul Margas and Philippe Brunel study the 'Big Fish Little Pond Effect' (BFLPE) in a physical education setting

Overall, the authors of these articles offer us new ways to think about the contributions that we, as sport and exercise researchers, interested in relationship issues can make to the practical issues of coaching.

The coach-athlete relationship is considered to be the foundation of the coaching process and the most meaningful interpersonal relationship in sport because its nature is likely to determine the athlete's development, satisfaction, self-esteem, confidence and performance accomplishments (Jowett and Cockerill (2003); Jowett (2005); Lyle (1999)). The coach-athlete relationship has the ability to play a significant role in many of the decision-making processes which ultimately determine the athlete's ability to develop and perform both on and off the playing field. Therefore, it is not surprising that the coach-athlete relationship is considered to be particularly crucial.

The coach–athlete relationship is not an add-on to, or by-product of, the coaching process, nor is it based on the athlete's performance, age or gender – instead, like Jowett (2005) pp.412 explained it is, the foundation of coaching, *"now that the coach-athlete relationship is recognized as the foundation of coaching and a major force in promoting the development of athlete's physical and psychosocial skills, the coaches' ability to create perfect working partnerships with their athlete becomes paramount"*.

The question is 'What makes the ideal coach–athlete relationship?'

The coach and the athlete intentionally develop a relationship, which is characterized by a growing appreciation and respect for each other as individuals. Overall, the coach–athlete relationship is embedded in the dynamic and complex coaching process and provides the means by which coaches' and athletes' needs are expressed and fulfilled (Jowett and Cockerill 2002).

The athlete–coach relationship is fundamental in the process of coaching because its nature is likely to determine the athlete's satisfaction, self-esteem and performance accomplishments (Jowett and Meek 2000).

When we talk about individual sports such as athletics, the individuals operate on a one-to-one basis. Coaches of individual sports appear to be involved in all facets of their athletes' lives. Therefore, the dynamics involved in individual sports are much different than those in team sports. In individual sports there are distinct coach-athlete relationship types (Bloom, Durant-Bush et al. 1998):

- The typical coach dyad

The coach-athlete dyad is an interpersonal relationship that is specific and important to sport psychology. Sport psychology researchers agree that the coach-athlete relationship is crucial to the achievement of a successful performance and interpersonal satisfaction (Butler (1997); Salmien and Linkkonen (1996); Smith and Smoll (1996); Vealey, Armstrong et al. (1998)). The extent to which the coach and athlete influence each other and consequently performance and participation in general are fundamental issues to the coaching process.

- The married coach-athlete dyad

To be a couple in a coach-athlete relationship is quite usual in individual sports, especially in athletics, whereby the connection between both is very strong because of the amount of time they spend together (Flórido 2013). In athletics the bounds are so strong between the coach and the athlete that it is quite often to become a couple.

- The family coach-athlete dyad

Coaching your child can be a wonderful experience when handled well by parent-coach and child. The bonding that occurs can strengthen the relationship between them. A recent study with youth soccer showed that having a parent coach can not only be great for the parent but for the child (Weiss and Fretwell 2005). Parents know their child better than anyone and can make informed coaching decisions based on the child's mood swings and reactions to certain situations. There are also concerns for the child. She may begin to feel pressure because the parent is the coach so the expectations upon her are very high.

- The virtual coach-athlete dyad

Where the coach does his mentoring online, like sending training programs to the athlete. This type of dyad occurs when the coach and the athlete can't be together very often most of the times because of living distance problems.

Several qualitative studies have illustrated the significance and quality of the athlete–coach relationship. Kalinowski (1985) pp.140, following in-depth interviews with 21 Olympic swimmers, concluded, in referring specifically to coaches and parents, that *“no one can become an Olympic calibre swimmer without the direct support, instruction, and otherwise, of many people”*.

For example, Steve Cram described his relationship with his coach Jimmy Hedley as being supportive. The heptathlete Glynis Nunn, coached by John Daly, similarly stated that her relationship with her coach was underlined by understanding. Also, Bloom, Durant-Bush et al. (1998) explained that often coaches' relationships with athletes are reciprocal, trusting, genuine, and helping in nature and go beyond merely teaching and instructing skills, techniques and tactics. Similarly, Poczwadowski, Barott et al. (2000) found that the athlete–coach relationship was underlined by respect, belief in, knowledge of, and contribution to the other's goals, needs, and wants. Specifically, the element of care on the part of the coach was found to be essential in the relationship. Moreover, Davis and Jowett (2010) noted that athletes rely on coaches to be a secure base to help explore their sporting environment and seek a level of closeness in order to do so.

Vanden Auweele and Rzewnicki (2000) stated that relationship research in sport will benefit if sport psychology researchers consider theories, concepts and methodologies from other areas of psychology. In this light, Jowett and colleagues (Jowett (2001), Jowett and Meek (2000)) proposed an alternative conceptual model of the athlete–coach

relationship that is based on Kelley, Berscheid et al. (1983) definition of interpersonal relationships. Kelley, Berscheid et al. (1983) defined a dyadic relationship as the situation in which two people's behaviours, emotions, and thoughts are mutually and causally interdependent. This conception of relationship (Figure 2, part A) not only identifies the basic constituents of human relationships, but also their interrelations.

Subsequently, three interpersonal constructs (Figure 2, part B), namely Complementarity (Kiesler 1997), Closeness (Berscheid, Snyder et al. 1989), and Co-orientation (Newcomb 1953), were selected from the interpersonal relationship and behaviour literatures in order to operationalize the basic constituents of the athlete–coach relationship (Jowett and Meek 2000). This is where the conceptual models of the 3 Cs come in.

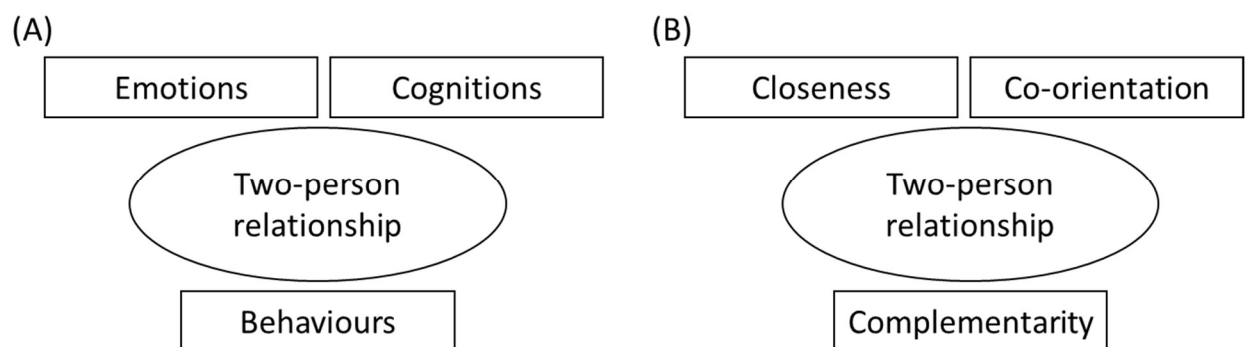


Figure 2 The coach-athlete relationship model (Jowett and Meek 2000)

A series of research studies has demonstrated that high scores along the 3 Cs dimensions are associated with higher levels of satisfaction with performance and personal treatment (Jowett and Don Carolis 2003), higher levels of team cohesion (Jowett and Chaundy 2004) higher levels of harmonious passion toward the activity – as opposed to obsessive passion (Olympiou, Jowett et al. 2004), and lower levels of role ambiguity in team sports (Olympiou, Jowett et al. 2005).

The coach–athlete relationship is defined by mutual and causal interdependence between coaches' and athletes' feelings, thoughts and behaviours (Jowett and Cockerill 2002). Coaches' and athletes' interconnected feelings, thoughts and behaviours have been operationalised and systematically studied through the constructs of Closeness, Commitment and Complementarity (Jowett and Cockerill (2002); Jowett and Ntoymanis (2003)).

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Closeness describes the emotional tone of the relationship and reflects the degree to which the coach and the athlete are connected or the depth of their emotional attachment. Coaches and athletes' expressions of like, trust, respect and appreciation indicate a positive interpersonal and affective relationship.

Commitment reflects coaches and athletes' intention or desire to maintain their athletic partnership over time; it is viewed as a cognitive representation of connection between the coach and the athlete.

Complementarity defines the interaction between the coach and the athlete that is perceived as cooperative and effective. Complementarity reflects the affiliation motivation of interpersonal behaviours and includes behavioural properties, such as being responsive, friendly, at ease and willing.

According to Jowett and Cockerill (2002), the coach-athlete relationship is embedded in the dynamic process and provides the means by which coaches' and athletes' needs are expressed and fulfilled. It is the heart of achievement and the mastery of personal qualities such as leadership, determination, confidence and self-reliance.

Although there is no conclusive evidence to suggest that a causal relationship exists between the quality of the coach-athlete relationship and performance accomplishments, there is some evidence to indicate that successful relationships are likely to include positive interpersonal qualities such as trust, respect, commitment, and understanding (Greenleaf, Gould et al. (2001); Hemery (1986); Jowett and Cockerill (2003); Vernacchia, McGuire et al. (2000)).

In an attempt to fill this gap, the dynamics involved between coaches and athletes have been identified in areas such as leadership and motivational climate. As mentioned previously, the nature of the interpersonal relationship that coaches and athletes develop in the course of their athletic partnership remained unchallenged conceptually and empirically.

In order to locate all the variables in the context of coaches and athletes, it is critical to understand how coaches and athletes interact interpersonally. This section will thus outline how theorists from the field of sport psychology frame and examine the unique components of coach-athlete relationships.

In the 1990s, however, there was a shift, spurred by research by Jowett and Meek (2000), to examine the interpersonal, relational and emotional characteristics that coaches and athletes share. Essentially, researchers focused not so much on just the coaches, but on how coaches and athletes relate as a unit. The shift entailed an emphasis on the bi-directional and reciprocal nature of relationships, whereby sport psychology theorists began to draw from relational theories in adjoining fields (Jowett and Cockerill (2002); Jowett, Paull et al. (2005); Poczwadowski, Barott et al. (2002); Wylleman (2000)). Research began to illustrate the impact of the dyadic athlete-coach relationship on athlete success, leading some theorists to place coach athlete relationships at the heart of sports training (Jowett and Clark-Carter (2006); Lyle (1999)). Interpersonal theories from conjoining fields were initially used to develop a model of the coach-athlete relationship. In particular, research from social and cognitive psychology illustrating the interrelatedness of cognitions, emotions and behaviours in relationships (Hinde 1997); (Kelley, Berscheid et al. 1983) was used to create a basic framework for describing and exploring athlete-coach relationships (Jowett and Meek 2000). That initial framework of interrelated components led to Jowett and Cockerill (2002) further refining their model by theorizing and testing three interrelated cognitive, emotional and behavioural components that have been shown to have a significant impact on coach-athlete relationships.

The above mentioned characterizations of the 3 C's - given credence in a sporting context via qualitative research by Jowett and colleagues (Jowett and Cockerill (2002), Jowett and Meek (2000); Jowett and Ntoymanis (2003); Jowett and Timson-Kathis (2005)) - help begin setting up a framework for considering the impacts of touch communication between coaches and athletes. More specifically, as Jowett (2006) points out, they bring to the surface relationship aspects that reveal the settings in which coaches' and athletes' experiences, roles and social behaviours take place. Hence, for this study, the 3 C's provided a starting point for considering what types of emotional and relational messages are important when considering the enactment and perception of touch communication between coaches and athletes.

Although the 3 C's provide a starting point for understanding coach-athlete relationship, they are limited in their capacity to describe explicit similarities of the shared knowledge of coaches and athletes. Research by Duck (1994) indicates that relationship members in general are motivated to achieve and sustain similarity because it immediately connects two individuals. Because of this inherent striving for similarity, and in part because of an

increase in social psychology research focusing on the congruence and incongruence of human cognitions in relationships, Jowett and Clark-Carter (2006) proposed that a fourth “C” - co-orientation - be added to the model. Co-orientation is described as athletes’ and coaches’ shared knowledge and understanding (Jowett and Clark-Carter 2006). In their conceptualization of co-orientation, Jowett and Clark-Carter draw upon research by Laing, Phillipson et al. (1966) that illustrates two sets of perspectives or perceptions that individuals use to co-orientate their relationships. The first is the direct perspective, which Jowett and Clark-Carter (2006) utilize to describe an athlete’s or coach’s own perception of how close, committed or complementary s/he feels in relation to the other. The second perspective is the meta-perspective, used by Jowett and Clark-Carter (2006) to describe athletes’ and coaches’ perceptions of the other’s feelings of closeness, commitment and complementarity. Findings from a study by Jowett and Clark-Carter (2006) indicate that gender differences, power/role differences and relational stage differences all contribute to variable perceptions of co-orientations. The 3 + 1 Cs model has been applied in both qualitative and quantitative research within diverse cultural backgrounds, including China (Yang and Jowett 2010), Switzerland (Phillipe and Seiller 2006), Greece (Jowett and Meek 2000), Belgium (Balduck and Jowett 2010), Hungary (Trzaskoma-Bicsérdy, Bogнар et al. 2007) and UK (Adie and Jowett 2010). Moreover, the quality of the coach-athlete relationship has been found to be associated with important outcomes including team cohesion (Jowett and Chaundy 2004), athletes’ physical self-concept (Jowett 2008), perceptions of coach-created motivational climate (Olympiou, Jowett et al. 2008), athletes’ passion for sport (Lafrenier, Jowett et al. 2008), athletes’ and coaches’ satisfaction with sport (Jowett and Nezlek 2012), attachment styles (Davis and Jowett 2010), as well as empathic accuracy (Lorimer and Jowett 2009). Although the authors call for more research to determine the specific effects of gender, power and relational stage, their study supports findings from relational research involving other dyads (for example, marital couples) and lends credence to the usefulness of co-orientation as a factor in describing athlete-coach relationships.

Furthermore, the nature of sports coaching implies an achievement situation, where the performance of both coach and athlete is evaluated. Thus, people are often inclined to evaluate a given coach–athlete relationship as either successful or unsuccessful. Successful relationships are those that have unambiguously reached a level of normative performance success (e.g. a World championship gold medal).

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A taxonomy that allows us to view successful versus unsuccessful and effective versus ineffective relationships together is an interesting one (Jowett, in press). An unsuccessful yet effective coach–athlete relationship will invariably have some positive outcomes for the athlete (and the coach) in terms of psychological health and well-being – but obviously not performance-related ones. Although successful relationships are desirable, without their being effective they run a risk of breaching ethical and professional issues that are associated with codes of conduct formulated to protect coaches and athletes. Additionally, one key factor to successful outcomes in coaching is the quality of the relationship between coaches and athletes (Jowett 2017).

Chapter Summary

In summary, coach-athlete relationships can be characterized by the members' levels of closeness, commitment and complementarity, along with their perceptions of similarity regarding those three factors. In addition, gender, power and relational stage can be said to affect athletes' and coaches' perceptions of how similar they feel they are in terms of closeness, commitment and complementarity. Taken as a whole, the abovementioned body of research paints a descriptive picture of the coach-athlete relationship and, in doing so, suggests that some variables as cohesion, power, compatibility and motivation along side with the 4 C's exchanged within the relationship may have a significant impact on the mutual goals of athletes and coaches.

Chapter Three

Conceptual framework and Model Development

The subject coach-athlete relationship it is far more complex than we think. If we go back in time, there are plenty of models and coaching styles that attempt to describe effective, successful, helpful and healthy coach-athlete relationships. It is perhaps surprising then that, historically, coaching has been preoccupied with merely enhancing athletes' physical, technical and strategic skills' and focusing on performance excellence, while simultaneously disregarding the value of developing the athletes' psychological, social, emotional and personal excellence (Jowett 2005).

Some researchers like Jowett and Cockerill (2003) suggested that coach-athlete relationships should be reciprocal, trusting, genuine, and helping in nature and go beyond merely teaching and instructing skills, techniques and tactics.

Also, two years later Jowett (2005) said that the coaches' ability to create positive, working partnerships with their athletes is of prime importance in the promotion of the athletes' physical and psychological skills. As a result, Philippe and Seiler (2006) believed that the coaches and athletes should develop a professional partnership relationship which focuses on the athlete's training and performance results, as well as other aspects related to the personal life of the athlete.

After going through all these studies and suggestions, I realized that there was an absence of empirical research focusing on both, coach and athlete in the same way. Having said that, the current model begins to fill the gap in the existing literature with an examination of elite coaches and athletes perspectives on what makes the coach athlete relationship.

This model was divided in three main areas, the participants identity (coach and athlete), as long side as the relationship variables and outcomes that defines the coach-athlete relationship. The focus of this model was on the second column (relationship variables), that is why the Identity and outcomes were less developed.

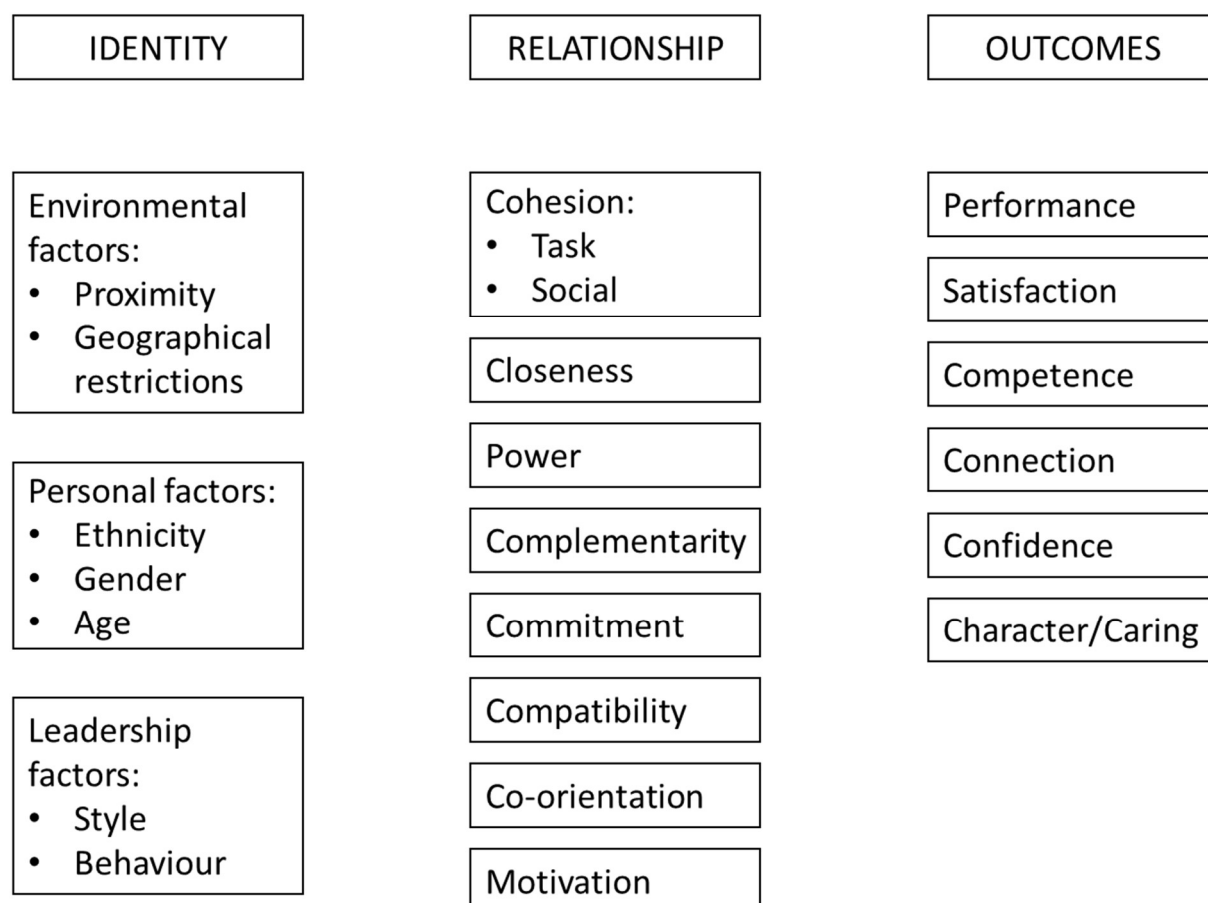


Figure 3 New conceptual model of the coach-athlete relationship (CAR)

Identity of the Participants

This section outlines the impact of the environmental, personal and leadership factors on the coach and athlete lives.

Before everything else, this model main concerned was to getting to know the participants involved in this study. So subjects about their lives, where they lived, what were their interests, the main barriers that they had to face every day were taking into consideration.

The terms identity and self-concept are often used arbitrarily when an individual describes the focus of his or her beliefs, actions, or interpretations. Despite the use of terms like this in casual dialogue, the complexities of these terms are rarely fully explored in lay conversation. Role identities, when fully understood, can be a very useful concept when seeking to understand the behaviours of individuals.

One of the early pioneers in the development of the concept of identity was the symbolic interactionist George Herbert Mead (Lane 2011). Though some psychologists alleged that the human mind operated in a simple stimulus-response manner. Mead (1934) believed a

person's identity was developed through a dynamic process of social interaction and reflexivity. Through the development of this new idea, Mead (1934) laid a very important framework for future investigation of social psychological development. Cooley (1902) suggested that an individual imagines how he or she appears to others, envisions how that appearance is judged by others, and finally develops their concept of self by interpreting that perceived judgment from others. McPherson (1989) expanded on these ideas by suggesting that the context of the social situation plays a large part in the development of the concept of self and that these contexts lead to behavioural expectations both by the individual and the others with whom he or she is interacting. In an effort to continue examining these processes, Stryker and Burke (2000) investigated social groups and networks and the positions that individuals occupy within those groups. Because individuals are typically involved in several social networks, they develop a variety of identities as well. Identity and behaviours are involved in a reciprocal relationship in which each influences the other.

It is important to understand that identities do not automatically determine behavioural responses, but that identities and behaviours are involved in a reciprocal relationship with one another. As one's sense of a particular identity becomes stronger, it is likely that the behaviours associated with that identity become more frequent. In turn, as the behaviours associated with a particular identity are employed in social situations and get positively reinforced, that particular identity may be strengthened.

Relationship variables

After the literature review many variables were taken into consideration but only some were thought to be relevant in the coach-athlete relationship. This section aims to describe each of those relationship variables in turn.

Cohesion

As an integral part of all groups, cohesion is studied extensively in many different areas of psychology including clinical, social, industrial, military, exercise, and sport (Dion 2000). Although there are a number of distinct definitions of cohesion, the present study focuses on one: “a dynamic process reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Widmeyer, Brawley et al. 1990). One strength of this definition is that it identifies four major characteristics of cohesion (Carron and Eys 2012).

Table 8 characteristics of cohesion

MULTIDIMENSIONAL	Members join and remain in groups for many different reasons, and these reasons vary between groups.
DINAMIC	The forces acting on members to join and remain involved in groups are not stable and can change as groups develop over time.
INSTRUMENTAL	Every group has a purpose for its formation and, therefore, must have a purpose for its actions.
AFFECTIVE	All groups provide a context for the development of social relationships, good or bad, during their existence.

Within sport and exercise psychology, the most systematic research has been conducted by the Canadian trio Bert Carron, Neil Widmeyer, and Larry Brawley. Carron (1982) pp.128 laid the groundwork by developing a conceptual framework and defining cohesiveness as a *“dynamic process which is reflected in the tendency for a group to stay together and remain united in the pursuit of its goals and objectives”*. Carron’s definition provides a starting point and incorporates some features particularly relevant to sport and exercise psychology (Dennis and Carron 1999).

First, cohesion is multidimensional, resulting from many factors that may differ among even apparently similar groups. Second, cohesion is dynamic, it can change over time, and its sources and consequences can change through the dynamic group processes. Third, cohesion is instrumental; group members cohere for instrumental reasons, whether to be part of a university basketball team or to maintain an exercise program. Fourth, cohesion has an affective dimension, even in highly task-oriented groups such as sport

teams, social cohesion generally develops as a result of member's instrumental and social interactions and communications.

Finally, because the goals of all groups are complex and varied, cohesion is perceived differently by different groups and members. Approximately 15 years ago the group of researchers Widmeyer (1985), Brawley, Carron et al. (1987) has proposed a conceptual model in an attempt to understand and measure cohesion in sport teams. This conceptual model which was derived from the group dynamics literature, and their measurement procedure, which taps both group and individual beliefs of group members Bandura (1986); Kenny and Lavoie (1985); Moreland and Levine (1988); Schlenker (1975); Schlenker and Miller (1977); Zander (1971) is grounded on the assumption that cohesion, a group property, can be accessed through those beliefs.

Albert Carron, defined group cohesion as *“a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of goals and objectives”* (Carron 1982 pp.124).

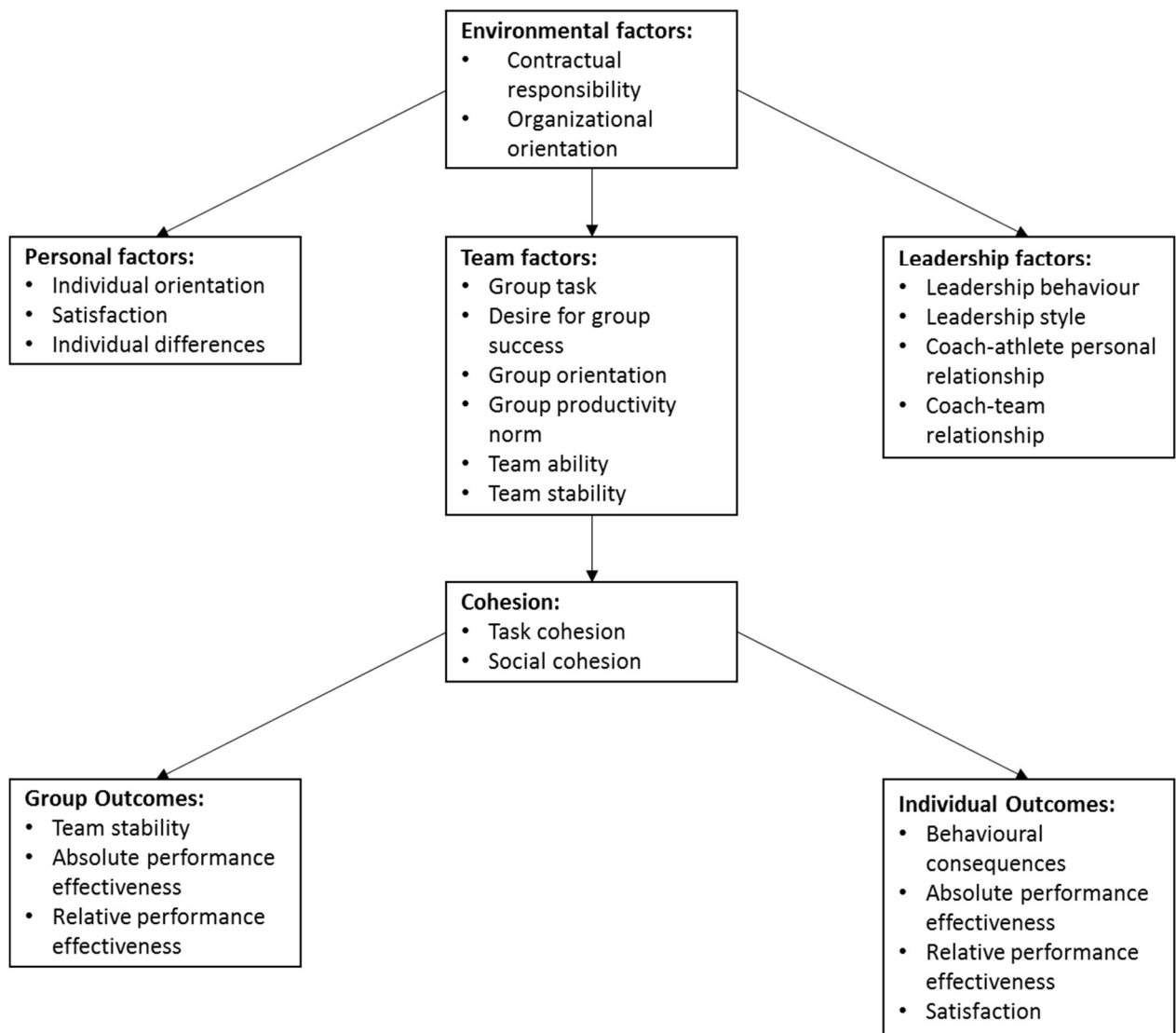


Figure 4 Carron's conceptual system for cohesiveness in sports teams 1982

Carron's framework for cohesiveness in sport teams continues to guide the research. This model includes situational, personal, leadership, and team factors that contribute to multidimensional cohesion.

Situational factors include physical closeness, as individuals who are physically closer to each other tend to bond together, as do team members who live near each other or travel together. Uniqueness from other groups also increases feelings of unity, contributing to cohesion. Special privileges, club t-shirts, or group rituals might all enhance distinctiveness. Widmeyer, Brawley et al. (1990) suggested an inverted U relationship between group size and social cohesion in intramural basketball, with moderate-sized groups showing greatest cohesiveness. However, Williams and Widmeyer (1991) found no relationship between group size and social cohesion with golf teams.

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Personal factors reflect individual abilities, attitudes and commitment. Similarity of personal factors seems related to cohesion, but evidence is sparse. Dennis and Carron (1999) suggested that the most important personal factor is satisfaction, also listing commitment to the team as a personal source of cohesion.

Leadership factors reflect interrelationships with the coach. Research on leadership and decision-making styles is relevant here. Generally, a more democratic style is better for cohesiveness than an autocratic style, and compatibility between coaches and athletes is also related to cohesiveness.

Team factors relate to the four elements of group structure: position, status, roles, and norms. Group positions refer to consistently occupied space; roles are sets of behaviours expected of occupants of specific positions. Research suggested that when individuals understand their roles (role clarity), accept their roles (role acceptance), and carry out their roles (role performance), groups are more effective, and as (Dennis and Carron 1999) note, more cohesive.

Group norms, which are standards or expectations, are another relevant factor: establishing group goals and rewards influences task cohesiveness, suggested that coaches should emphasize group goals while downplaying individual rewards (Carron and Dennis 1998).

Over the past twenty years, research on team cohesion has made it clear that one must understand two basic concepts in order to understand the relationship between cohesion and team behaviour. The first is the distinction between task and social cohesion, and the second is the distinction between direct and indirect measurement of cohesion.

Task cohesion- is the degree to which members of a team work together to achieve a specific and identifiable goal.

Social cohesion- is the degree to which the members of a team like each other and enjoy personal satisfaction from being members of the team.

Cohesive groups outperformed less cohesive groups only if the groups' norms called for better performance.

Sport and exercise psychologists have spent much time conceptualizing and measuring cohesiveness but have virtually ignored moderating and mediating variables. As defined

by Carron (1982), cohesiveness is dynamic; we must move beyond our starting definitions and incorporate moderator and mediator variables in our research in this area.

Closeness

This section merges the sport and non-sport discussion as the majority of the research is sport related.

Closeness refers to feelings and perceptions that appear to be a function of interpersonal factors such as liking, trust, and respect.

As with other psychological constructs, closeness represents a significant challenge to the measurement-minded social scientist. Although the closeness that people can feel for others is undeniably palpable, it is not easily captured by the standard methods and approaches used to assess other important relationship construct.

As Aron, Aron et al. (2001) have noted the measurement of closeness has been approached from multiple angles, including affective ("feeling close") and behavioural ("acting close") perspectives.

The literature review tell us that, open channels of communication, voicing of needs, effective problem-solving, acceptance and appreciation characterize closeness.

Importantly, such qualities as trust and respect have been associated with successful coaching (Janssen and Dale 2002), while their absence is linked to less harmony and less support (Dodge 1999).

Interpersonal relationships are dynamic in nature, day to day, these relationships fluctuate in perceived quality: Individuals feel more and less close to, committed to, and satisfied with their significant others (e.g., Murray, Bellavia et al. (2003); Wieselquist, Rusbult et al. (1999)). In everyday life, what determines this waxing and waning of relationship outcomes? That is, what predicts the direction of one's movement toward, versus away from, significant others? In this research, it became important to explain the degree of closeness one feels to others as a function of the link between those others and the self's personal goals. In particular, how the motivational priority of goals for which the significant other is or is not helpful affects interpersonal closeness.

Research has suggested that interpersonal closeness can often be a function of a given partner's instrumentality for an active goal (Fitzsimons and Shah 2008). However, the

impact of goals on interpersonal closeness may be more complex than previously thought. Specifically, research proposes that the motivational priority of the active goal (i.e., its strength in the moment) determines feelings of closeness to significant others.

Having said that, the term "Closeness" has been used in the broader relationship psychology as an umbrella term to describe social and personal relationships that are close. Hence, a clarification of closeness in the coach-athlete relationship seemed appropriate and necessary. A few textbooks that contain information about closeness in relationships or close relationships highlight the vastness of the subject of closeness within relationship research. In fact, the field of relationship research appears to have been defined by the term closeness and close relationships. In other words, the degree and nature of close relationships has been a focal point of the field with numerous conceptualisations and measurement tools. According to Berscheid, Snyder et al. (1989), closeness concerns the emotional tone of the coach-athlete relationship and it reflects the extent to which coaches and athletes are connected, or the depth of their attachments. For example, coaches' and athletes' expressions of like, trust and respect, as opposed to dislike and distrust, indicate a positive interpersonal affective state.

Power

Given the interpersonal nature of the relationship between elite coaches and athletes, it is not surprising that the issue of power is of particular interest to psychologists, coaches and athletes. The coach-athlete relationship is indeed a complex one. It raises a number of questions such as: Who holds the power in the coach-athlete relationship? What kinds of power are evident? Why do those who are subject to power allow themselves to be so subjected?

Power is present in all social relationships and possessed by all individuals and social groups, arising out of their connections to each other (Gruneau 1993). It reflects the ability to influence others to further interests and/or to resist the activities of others (Atlee and Atlee 1992). Lyle (2002) notes the coach-athlete relationship is no exception and the exercise of power is an internal social issue.

One of the most notable studies on power was conducted by social psychologists (French and Raven 1959). They've identified five bases of power:

- Position Power

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The owner, the board, or the administration of the team can give to the coach the power to reward or punish the athletes, in order to influence their behaviour. Legitimate power, and coercive power are all forms of position power used by the coach to change sport team member's behaviour.

- Legitimate Power

It arises from the title-position one holds. This power comes from the formal position of the coach in a team and the authority granted to him that it is called legitimate power. When a person has been appointed as a coach, athletes, assistants and personnel understand in order to maximise their performance. Athletes accept this source of power as legitimate, and this is the reason why they comply. The coach's position confers authority to team members.

- Reward Power

It stems from the authority to bestow rewards on other persons. It exists when the promise/granting of desirable consequences influences others. The coaches can use extrinsic or intrinsic rewards to influence athlete's behaviour. Extrinsic rewards could be inclusion in the team, playing time, extra bonuses, etc. Intrinsic rewards could be the praise of the coach, etc.

- Coercive power

It refers to the authority to punish or recommend punishment. It occurs when influence is a result of a threat or actual imposition of some unpleasant consequences. Coaches have coercive power when they have the right to criticise individual and team performance, punish improper behaviour, fire assistants or personnel, etc. Sometimes people (athletes) do what others (coaches) tell them, not because they believe in their wisdom, but because the results of not obeying would be unpleasant. Coercion usually isn't the most effective type of power.

- Personal power

It derives from internal sources, such as the coach's special knowledge or personality characteristics. This kind of power is the main tool of the leader. Athletes, assistants, personnel, even spectators follow a coach because of respect, admiration, and belief in his/her ideas, and knowledge (Conger 1998). Expert power and referent power are two types of personal power.

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Expert Power: It comes from the coach's special knowledge, skills, and experience. It exists when people believe because of what they believe they know or could influence them. When a coach is an expert, with many successes/ victories/ distinctions, athletes will believe in him/ her and will follow recommendations because of his/her superior knowledge on the particular sport. If athletes and personnel will not trust coach's expert power, they will not believe in him. The result will be lack of discipline, bad communication and disobedience.

Referent power: It reflects the respect, liking and trust that others have for a coach. It derives from the coach's personality characteristics rather than on a formal title or position. When athletes / personnel believe in a coach because of the way she/he leads, teaches, and trains them during practices and games, they are influenced by his referent power. The coaches with high referent power are capable of persuading athletes and personnel to follow him/her.

Coaches may have power over athletes on the basis of their age, gender (in the case of male coaches over female athletes), their knowledge and access to resources, their authority to make decisions and to reward and punish, as well as their past successes (Tomlinson and Strachan 1996). Athletes require the coach's specialized knowledge and skills in order to succeed and, as a result, athletes develop some level of dependency on his or her coach.

Interestingly, the coach's power often transcends to other areas of an athlete's life. Furthermore, although many coaches may believe that they are working in the best interests of the athlete, it is important to note that some coaches' careers and income are dependent on the athletes' performances. So while the power and control the coach has over the athlete may not be intended to be exerted in a negative manner, pressures on the coach to succeed may lead to decisions that go against the well-being of the athlete.

In sport, where coaches have considerable power, this term is synonymous with action. The challenge for coaches is taking the right actions, actions that contribute to the all-around development of athletes, both while they participate in sport and throughout the rest of their lives (Tomlinson and Strachan 1996). Therefore, coaches must find ways to positively use their power to promote the pursuit of both excellences within the coach-athlete relationship. In sports context it is important to understand if the athletes recognize

these types of power in their coaches and how does power influence the way they work and live their life?

Complementarity

Complementarity occurs on the basis of a reciprocity of the control dimension (dominance pulls submission and vice versa), and correspondence of the affiliation dimension (friendliness pulls friendliness and hostility pulls hostility) (Kiesler 1983).

Complementarity, reflects a positive working environment where coach and athlete work together to attempt to improve performance. Jowett (2005) suggest that complementarity has been found to relate to both high levels of performance and greater satisfaction with the relationship. Extending this research to incorporate coach and athlete relationships would certainly help to extend knowledge of interpersonal relations within athletics.

Complementarity refers to the type of interaction that the coach and the athlete engage in, as well as to motivations and appropriate resources for developing an athletic relationship (Jowett 2001). Naturally, Complementarity of resources has a role to play in the formation and maintenance of that relationship. For example, the coach provides competencies that the athlete often does not possess, but that are needed to improve performance. In a complementary way, coaches need athletes to apply their competencies in the pursuit of excellence. Because co-operation is a principal complementary property in the athlete–coach relationship, complementarity reflects the type of interaction that the coach and athlete perceive as co-operative.

Commitment

Commitment is defined as the psychological construct reflecting the desire and resolve to persist in an attempt over time (Scanlan, Simons et al. (1993); Scanlan and Simons (1992). Commitment appears to reflect oneness of thought between coach and athlete, and is defined as an intention to maintain and optimize relations (Jowett 2005). When performances fall below expectations, commitment can guard against retaliation by promoting accommodation, and this is characterized by flexibility when change is necessary. A lack of commitment has been shown to be linked to criticism, communication breakdown and a lack of common goals (Jowett 2003).

Sport commitment is a psychological state, reflecting the aspiration and determination to continue participation in a sport (Scanlan, Simons et al. 1993). To date, sport psychologists

have given little attention to the interaction between coach and athlete and how that interaction contributes to maximum athlete performance.

Compatibility

In the past only a few attention has been directed toward studying two-way interaction between the coach and individual athletes.

According to Carron and Bennett (1977), inherent in any conclusion about coach-athlete compatibility based on the coach's personality traits, attitudes, and or values is one major shortcoming. The athlete is treated as a virtual non participant in the relationship, the factor of interaction is ignored. An accurate assessment of the factors contributing to or detracting from coach-athlete compatibility must take into account the needs, involvements, and contributions of both.

Schutz (1966) has stated that people have a need to both express and receive three types of behaviour – inclusion, control and affection – in their relationships with others.

Compatibility exists if the behaviour expressed by one person is congruent with what the other person wants to receive.

The compatibility-performance relationship may be dependent on the nature of the task (Hill 1975). Hill has suggested that when people work independently on a task, incompatibility may benefit performance by arousing competition among the performers. However, when they must interact, cooperation rather than competition is more important.

Co-orientation

Co-orientation is defined as misperceptions about the opinions and behaviours of others. Therefore, refers to similar views and opinions, or the common ground that coaches and athletes establish in the course of their athletic partnership. Effective communication is important in enabling coaches and athletes to share each other's experience, knowledge, thoughts, values and concerns.

According to Laing, Phillipson et al. (1966) interperception method, co-orientation involves two sets of perspectives or perceptions: the direct perspective (direct perceptions) and the meta-perspective (meta-perceptions). In the coach-athlete relationship, an athlete's direct perspective is defined as his/her rating of closeness, commitment, and complementarity in relation to his/her coach (e.g., I respect my coach–closeness). An athlete's meta-perspective refers to an athlete's perception or judgment of his/her coach's rating of

closeness, commitment, and complementarity in relation to the athlete (e.g., My coach respects me—Closeness). Correspondingly, these interpersonal perspectives or interperceptions can be applied to the coach.

Laing, Phillipson et al. (1966) explained that there are three dimensions of co-orientation that can be assessed in two-person relationships. The dimensions of co-orientation can be assessed by simply comparing relationship members' direct and meta-perspectives. More specifically:

1. A comparison between one person's direct perspective (e.g., I trust my coach) and the other person's direct perspective (e.g., I trust my athlete) on the same issue (e.g., trust—Closeness) yields agreement or disagreement (co-orientation dimension: agreement or actual similarity).
2. A comparison between one person's meta-perspective (e.g., my coach understands me) and the other person's direct perspective (e.g., I understand my athlete) on the same issue e.g., understanding—commitment) yields accuracy or a level of understanding or misunderstanding (co-orientation dimension: Understanding).
3. A comparison between one person's direct perspective (e.g., when I am coached by my coach, I am at ease) and meta-perspective (e.g., my coach believes that when he/she coaches me, I am at ease) on the same issue (being at ease—Complementarity) yields congruence (co-orientation dimension: assumed similarity or congruence).

Co-orientation is therefore an important interpersonal construct and its psychometric assessment would provide a means to quantify the level of a dyad's co-orientation relevant to the quality of the athletic relationship (as defined by the 3 Cs). The assessment of co-orientation requires two measures, one that measures coaches and athletes' direct perspective of the 3 Cs, and another that measures coaches and athletes' meta-perspective of the 3 Cs.

Motivation

What makes an athlete sacrifice a highly desirable social life for the demands of high-performance sport? What pushes the athlete to pursue success in sport at all levels? Ryan and Deci (2000) emphasised the importance of motivation and how it influences the way in

which people think, feel and behave. As the architects of optimal training environments, coaches require an informed understanding of the underlying motives of athletes.

Performance, by its very nature, epitomizes the construct of human motivation (i.e., individuals being moved to act). Motivation research therefore plays a vital role in providing a better understanding of the conditions and processes that support optimal performance, as well as a performer's well-being, development, functioning, and persistence.

Motivation can be defined as the force that energizes and directs behaviour (Roberts and Treasure 2001). Thus, it comprises the perceived reasons for engaging in an activity. There is utility in studying motivation, as it provides a theoretical and practical insight into why one initiates, regulates, sustains, directs and discontinues behaviour. Studies in education (e.g., (Dweck 1986), (Deci and Ryan 2016)), the workplace (e.g., (Gagné and Deci 2005)), health and healthcare (e.g., (Carter and Kulbok 2002); (Hardcastle and Hagger 2016)), physical activity and exercise (e.g., (Gunnell, Crocker et al. 2014)), among other domains, indicate the widespread scale and importance of motivational research. In the area of sport psychology, there is similar interest in the psychological processes that influence behaviour, which extends from academia to the playing field.

Motivation is a construct (or latent variable), rather than an observable entity, which contributes to the difficulty in accurately measuring it ((Lavallee, Kremer et al. 2003). Many early assessments of motivation were behavioural in nature or relied on participants to provide verbal reports as to why they engaged in a particular activity. For instance, Lepper and Greene (1975) inferred participants' intrinsic motivation by observing their time on task following an experimental intervention. A comparable though less scientific sport-related example is as follows: an athlete who performs extra repetitions in the gym is often perceived by observers as highly motivated, though no measure of motivation has actually taken place.

One of the difficulties in defining motivation is that it is not directly observable. Thus, one strategy used to define motivation, implied by the preceding definition, has been to look at behaviour to determine whether someone is motivated or not.

A number of empirical studies have highlighted that the satisfaction of basic psychological needs can be important nutrients for growth, development, and well-being in the context of sport (Adie, Duda et al. 2008), (Adie and Jowett 2010), (Stenling and Tafvelin 2014).

Intrinsic motivation

Over the years, psychologists have come to realize the existence of different types of motivation. Two broad types that have been studied extensively are intrinsic motivation and extrinsic motivation. Intrinsic motivation refers to engaging in an activity for itself and for the pleasure and satisfaction derived from participation. Intrinsic motivation is simple and pure.

In 1992, Vallerand, Pelletier et al. (1992) proposed and showed that there are at least three types of intrinsic motivation: intrinsic motivation to know (engaging in the activity for the pleasure of learning), intrinsic motivation toward accomplishments (engaging in the activity for the pleasure of trying to surpass oneself), and intrinsic motivation to experience stimulation (engaging in the activity out of sensory and aesthetic pleasure).

Intrinsic Motivation to Know

This type of IM relates to several constructs such as exploration, curiosity, learning goals, IM to learn, and the epistemic need to know and understand. Thus, it can be defined as performing an activity for the pleasure and the satisfaction that one experiences while learning, exploring, or trying to understand something Sport Motivation Scale / 37 new. For instance, athletes are intrinsically motivated to know when they try to discover new training techniques for the sheer pleasure they experience while learning something new.

Intrinsic Motivation Toward Accomplishments

This second type of IM has been studied in developmental psychology, as well as in educational research, under such terms as mastery motivation, efficacy motivation, and task-orientation. In addition, other authors have postulated that individuals interact with the environment in order to feel competent and to create unique accomplishments (Deci (1975); Deci and Ryan (1985)). Thus, IM toward accomplishments can be defined as engaging in an activity for the pleasure and satisfaction experienced when one attempts to accomplish or create something.

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Trying to master certain difficult training techniques in order to experience personal satisfaction represents an example of intrinsic motivation to accomplish things in the sport domain.

Intrinsic Motivation to Experience Stimulation

Finally, IM to Experience Stimulation occurs when someone engages in an activity in order to experience stimulating sensations (e.g., sensory pleasure, visual experiences, as well as fun and excitement) derived from one's engagement in the activity. Research on the dynamic and holistic sensation of flow, on feelings of excitement in IM, on visual stimulating experiences, and peak experiences is representative of this form of IM. Athletes who participate in their sport in order to live exciting experiences are intrinsically motivated to experience stimulation.

Extrinsic motivation

When extrinsically motivated, individuals do not engage in the activity out of pleasure but rather do so to derive some kind of rewards that are external to the activity itself. An athlete who participates in the Olympics to obtain a gold medal and the associated fame and fortune that go with it represents an instance of an extrinsically motivated athlete. Avoiding punishment also pertains to extrinsic motivation. External Motivation refers to behaviour that is regulated through external means such as obtaining rewards (e.g., medals, trophies) and avoiding constraints (e.g., social pressure).

A second type of extrinsic motivation is interjected regulation. With this type of regulation, the individual has started to internalize merely replaces the external source of control with an internal one, that is, self-imposed guilt and anxiety. Thus, an athlete might say, "I go to practices because I would feel guilty if I did not." To the extent that the behaviour becomes valued and judged to be important for the individual, and especially to the extent that it is perceived as chosen by oneself, the internalization of extrinsic motives becomes regulated through identification. For instance, an individual might say, "I choose to go to practices because it will help me to perform better during the next competition."

Finally, an integrated regulation also involves engaging in an activity from an extrinsic perspective in a "choiceful" manner. However, in this case, one's choices are made as a function of coherence with the various aspects of the self. For instance, the integrated

athlete might decide to stay home on a Saturday night, rather than go out with friends, so that the athlete will be ready for the next day's competition.

In conclusion, extrinsic motivation is much more complex. A 100 percent intrinsically motivated runner runs because it feels good and probably won't feel the need to enter a race. Trophies, beating somebody across the finish line, bragging rights at the office and even beating your own previous best time are all extrinsic motivators

Motivational theories

Two well-known theories of motivation are achievement goal theory (Nicholls 1989) and self-determination theory (Ryan and Deci 2000). These theories have extensive applications in sport and exercise and have facilitated our understanding of motivated behaviour and related cognitive, affective and behavioural outcome.

Achievement goal theory

Achievement goal theory (AGT) postulates that, in the achievement setting of sport, two goal orientations are evident: task and ego. These goal orientations are linked to two different conceptions of ability. The first is the undifferentiated (or less differentiated) conception of ability, evident in most individuals below the age of about 12 years, whereby effort, luck and task difficulty cannot be distinguished from ability (or they are partly distinguished) as causes of outcomes (Nicholls 1989).

Previous research into motivation and achievement behaviour in sport has focused on achievement goal theory. This theory states that two goal orientations manifest themselves in achievement contexts and impact on the motivation process (Roberts, Treasure et al. 1998).

More empirical research (Sit and Lindner 2005) using Achievement goal theory in sports states that AGT does not take into consideration social need as another important type of motivational orientation.

Self-Determination Theory

Self-Determination Theory (STD) is an empirically based theory of human motivation, development and wellness (Ryan and Deci 2000). The theory focuses on types, rather than just amount of motivation, paying particular attention as predictors of performance,

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relational, and well-being outcomes. It also addresses the social conditions that enhance versus diminish these types of motivation. SDT is an important theory of motivation that addresses issues of extrinsic and intrinsic motivation. People have innate psychological needs:

- Competence
- Relatedness
- Autonomy

If these universal needs are met, the theory argues that people will function and grow optimally. To actualize their inherent potential, the social environment needs to nurture these needs.

Competence

Seek to control the outcome and experience mastery.

Relatedness

Is the universal want to interact, be connected to, and experience caring for others.

Autonomy

Is the universal urge to be causal agents of one's own life and act in harmony with one's integrated self.

Motivation has also often been grouped into two main types: extrinsic and intrinsic

With extrinsic motivation, a person tends to do a task or activity mainly because doing so will yield some kind of reward or benefit upon completion. Intrinsic motivation, in contrast, is characterized by doing something purely because of enjoyment or fun.

The empirical evidence in sport reviewed (Jowett and Ntoumanis 2001) shows that coaches who support their athletes' autonomy, provide structure and are highly involved create an optimal environment for the satisfaction of their athletes' needs of autonomy, competence and relatedness. These three psychological needs, in turn, foster the development and maintenance of athletes' intrinsic and self-determined extrinsic motivation as well as adaptive outcomes.

More recently research (Jowett, Adie et al. 2017) revealed that athletes who perceived a high quality relationship experienced heightened levels of basic need satisfaction. Need satisfaction positively predicted self-determined motivation, which, in turn, linked to enhanced well-being.

Outcomes

Athletes and coaches work very hard to develop their abilities and to excel in their sport, but what do they really want to achieve? There is a few common outcomes that elite coaches and athletes seem to pursuit. Outcomes like, Performance (Interpretation of the performance outcome has led to inconsistency in the literature, with the predomination of three separate interpretations. Firstly, performance has been equated to achievement. Satisfaction (is a broad term that is used to describe the totality of an athlete's emotional or psychical outcomes. Most notably, this construct has come to represent an athlete's satisfaction with their sporting experience, which has often been measured using the athlete satisfaction questionnaire. Numerous researchers have used this measure as an indication of the effectiveness of coach leadership.), competence (An individual's actual abilities in specific domains.), confidence (The degree of certainty an individual possesses about his/her ability to succeed. Internal sense of overall positive self-worth.), connection (The positive interpersonal relationship originating from the need to belong and feel cared for. Positive bonds with people and institutions.), and last but not least, Character/caring (An individual's moral development and sportnership, respect, integrity, moral and courage.) This part of the model was not develop in this study, as the focus was in the relationship variables.

Chapter Summary

The New model of the coach-athlete relationship (CAR) is of significance to elite coaches and athletes as it expands upon the traditional focus of the athletes' performance by recognizing the same importance and acknowledge the athlete and the coach as active participants within the coach-athlete relationship.

There is an absence of empirical research regarding the coach athlete relationship especially in individual's sports. The current study begins to fill the gap in the existing

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literature with an examination of elite coaches and their athlete's perspectives on the coach-athlete relationship in athletics.

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The purpose of this chapter is to describe the methods and procedures used to collect and analyse the data for the study.

Introduction

This chapter is divided into two parts. Part one outlines a Mixed Methods philosophy and research design and why it was chosen. Part two provides a step by step explanation of the collection and analysis procedures. Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the research process. As a method, it focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone (Creswell and Plano Clark 2007).

Therefore, this chapter will outline the methods that were used, and how the data was collected and analysed. Also, how these two procedures were combined in this study.

Research Design and Philosophy

The current study adopted a sequential mixed method design. Mixed methods research has been established as a third methodological movement over the past years, complementing the existing traditions of quantitative and qualitative movements (Tashakkori and Teddlie 2003).

A mixed methods study involves the collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research. Thus, there is a wide consensus that mixing different types of methods can strengthen a study (Greene and Caracelli 1997). Furthermore, social phenomena are so complex, that different kinds of methods are needed to best understand these complexities (Greene and Caracelli 1997).

Philosophically, it is the third research movement, a movement that moves past the paradigm wars by offering a logical and practical alternative. Philosophically, mixed

research makes use of the pragmatic method and system of philosophy. Its logic of inquiry includes the use of induction (or discovery of patterns), deduction (testing of theories and hypotheses), and abduction (uncovering and relying on the best of a set of explanations for understanding one's results) (Johnson and Onwuegbuzie 2004).

Mixed methods research also is an attempt to legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers' choices. It is an expansive and creative form of research, not a limiting form of research. It is inclusive, pluralistic, and complementarity and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research. What is most fundamental is the research question. Thus, research methods should follow research questions in a way that offers the best chance to obtain useful answers. Many research questions and combinations of questions are best and most fully answered through mixed research solutions.

According to Johnson and Turner (2003), gaining an understanding of the strengths and weaknesses of quantitative and qualitative research puts a researcher in a position to mix or combine strategies and to use the fundamental principal of mixed research. According to this principle, researchers should collect multiple data using different strategies, approaches, and methods in such a way that the resulting mixture or combination is likely to result in complementary strengths and intersecting weakness.

Philosophical assumptions

Two philosophical traditions have dominated the discussion of mixed method research strategies: positivism and interpretivist. Qualitative researchers typically locate themselves within an interpretivist tradition, although they also often hold realist assumptions about the world and the contextual conditions that shape and embed the perspectives of those they seek to study. Quantitative research is by contrast associated with positivism. As Bryman observed in 1984 qualitative researchers have spent more time defining quantitative methods than quantitative researchers have themselves (Bryman 1984). How quantitative researchers actually identify themselves is less evident since those writing about quantitative research typically give much less attention to epistemological and ontological assumptions in discussing their research. Such a dichotomous portrayal of qualitative and quantitative research proves to be more complex under closer analysis, as methodologists such as Bryman and Hammersley have noted on many occasions.

Qualitative researchers such as Whyte, Gansor Skolnick working in the tradition of participant observation work in a realist tradition (Bryman 1984). The paradigmatic position assumes working from the principle that choice of method is not made in a philosophical void, research questions should be thought about in relation to epistemological assumptions. Thus in terms of best practice, researchers may be well advised to consider what kind of knowledge they seek to generate.

There is another dimension too which relates to the transcendence of paradigms.

Some social scientists are concerned with generating understandings at the micro level while others are concerned with the macro level. Thus those in the former group emphasise the agency of those they study through an emphasis upon studying subjective interpretations and perspectives. Those working at the macro level are concerned with larger scale patterns and trends and seek to pose structural explanations. However all researchers aim to understand individuals in society.

Whether those who apply paradigm rationality will apply both qualitative and quantitative methods will depend upon the extent to which they seek to produce different levels and types of explanation.

History of the development of the pragmatic approach

If we want to examine the issues raised by a new approach such as combining qualitative and quantitative methods, we must start by examining the “dominant paradigm.” Hence, rather than assessing any new approach strictly on its own merits, the implications of that approach must be considered within an ongoing context where researchers have pre-existing commitments to other systems of beliefs and practices.

Within the science studies, the consensual set of beliefs and practices that guide a field is typically referred to as a “paradigm”. Paradigms have also become a central concept in social science research methodology, but often with a meaning that is rather different from the way that term is used in the field of science studies.

Thomas Kuhn’s landmark book, *The Structure of Scientific Revolutions* (1962/1996), is directly responsible for the popularity of paradigms as a way to summarize researchers’ beliefs about their efforts to create knowledge.

This philosophy concerns thinking that choosing between one position (epistemology, ontology, or axiology) and the other is somewhat unrealistic in practice; and it is argued that the most important determinant of which position to adopt are the research questions (Creswell and Plano Clark (2011); Saunders, Lewis et al. (2009)). This is particularly relevant where the research question does not suggest clearly that either a positivist or interpretive philosophy should be adopted in an inquiry, for example, within an epistemological perspective. Therefore, in this philosophical disagreement the uses of both qualitative and quantitative methods to resolve a real-life world challenge are commended.

Discussion on why and how Pragmatism mixed Method Paradigm fits this study

The philosophical perspective adopted by this research as in Figure 5 is that of a pragmatic approach which draws heavily on the inductive and deductive reasoning. This is because that in order to fully analyse a phenomenon, it is vital and necessary to support the inductive approach with deductive thinking to enable it to tackle a real-world problem such as in the case of this research. But, in research philosophy there are other alternatives such as interpretative, realism and positivism (Saunders, Lewis et al. 2009).

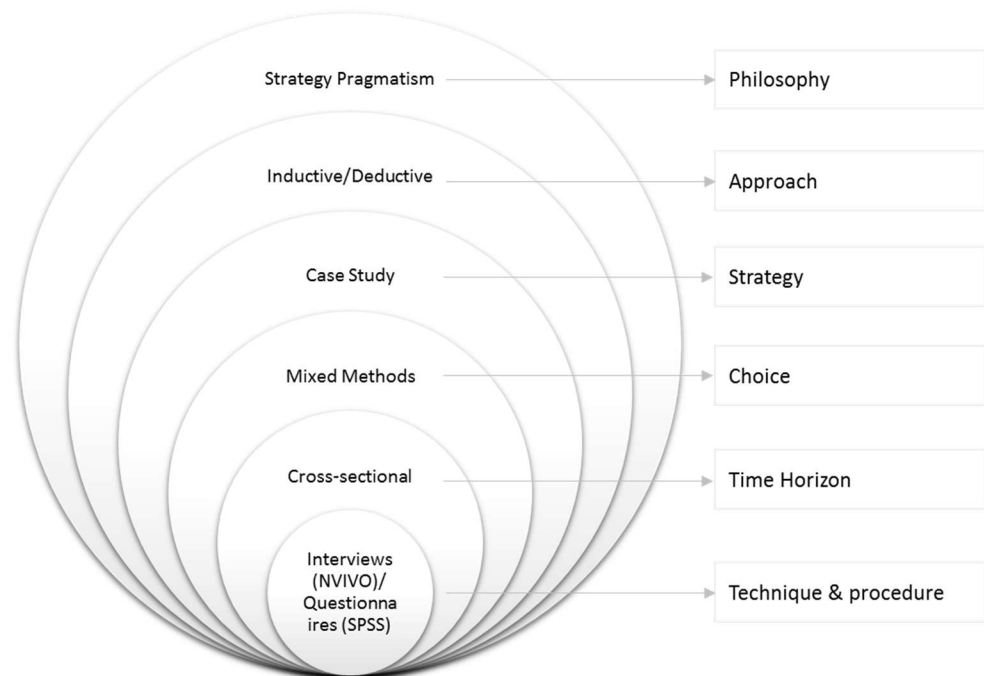


Figure 5 Research Process Source: Inspired by Saunders et al. (2009)

The rationale behind the choice of approach is the research questions, where the use of either quantitative or qualitative approaches does not completely address the research problem, whilst a combination of approaches does (Creswell and Plano Clark 2011). The pragmatic approach emphasises that multiple realities and perceptions exist in any given condition, and that, the researcher's choice of paradigm is dependent on the research question the study is trying to solve (Saunders, Lewis et al. 2009). The pragmatic approach provides for the use of both qualitative and quantitative research methodologies to collect information and make inquiry into complex phenomenon of social and natural contexts (Creswell 2009). Therefore, the pragmatic research philosophy provides for the adoption of mixed methods as the data collection method which opens the opportunity to be objective and subjective in analysing the points of view of the participants (Saunders, Lewis et al. 2009).

The pragmatic approach helps to provide a grounding where the research avoids engaging in issues of insignificance rather than issues of truth and reality and as such is intuitively appealing (Creswell (2009); Tashakkori and Teddlie (2003)). A pragmatic approach allows areas to be studied that are of interest, embracing methods that are appropriate and using findings in a positive manner in harmony with a recognised value system (Creswell 2009). In addition, the pragmatic research approach is multi-purpose in nature, and therefore, a good tactic that will allow questions to be addressed that do not sit comfortably within a wholly quantitative or qualitative approach to research design and methodology. Pragmatic research approaches also perceive issues differently in different scenarios and permit different views and interpretation of the world.

At the epistemological level, the pragmatic research approach provides the justification and rationale for combining methods and the knowledge of providing tentative answers to research questions for mixing approaches and method in a study (Johnson, Onwuegbuezie et al. 2007). The pragmatic research approach, though recent in research philosophies debates, focuses on the problem and tries to find practical solutions with the use of mixed methods. As a result, Saunders, Lewis et al. (2009) contended that pragmatism provided a basis for practical research by integrating different perspectives which help to elucidate the data interpretation process in research. Therefore, a pragmatic approach helps to understand the assumptions that underpin the knowledge and inquiry.

In addition, it does not classify the research as purely quantitative or qualitative in nature with either a positivist or interpretive philosophy. Hence, a pragmatic approach provides a balanced point between the deductive and inductive perspectives of thinking which offers practical answers for merging different paradigms. As a result, Creswell (2009) suggested that a pragmatic research approach seemed to be the most prominent paradigm with a strong philosophical relationship for a mixed method approach. Furthermore, a pragmatic approach provides a better grounding to fully explore the complex phenomenon instead of using a single method approach in the research. The pragmatic approach is a better process to answering “what”, “why”, and “how” research questions (Saunders, Lewis et al. 2009). Therefore, considering the unique features of this pragmatic perspective and critically deducing from the above, this research would adopt a pragmatic stance in research inquiries.

Methods

In this particular study, as it was mentioned above a pragmatic approach was used. The pragmatic approach allows for several sources of evidence in a cross-sectional research study, and because of this, different analytical instruments were used such as thematic coding and statistical methods for qualitative and quantitative information analyses.

As mentioned the study followed a sequential mixed methods approach and involved four stage. The details of these four stages are described in the following sub sections.

Stage 1

Stage 1 was the development of a conceptual model (this is outlined in chapter three).

Stage 2

The purpose of this Stage was to explore the coach-athlete relationship using a qualitative research method. By studying what makes up the coach-athlete relationship, (research question one) using this type of research method we were able to provide complex textual descriptions of coaches and athletes’ experience about several research issues. Thus, we were able to get information about behaviours, beliefs, opinions, emotions, and relationships between these individuals. This type of research methods was also important to identify intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, etc.

The main reasons for using qualitative research in this stage were:

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- To add rich detail and nuance that illustrates or documents existing knowledge of a phenomenon, generated quantitatively.
- To better understand this topic by studying it concurrently with both methods (mixing quantitative and qualitative methods in cycles, depending on the problem)
- To try to understand a social phenomenon from the perspective of the coaches and athletes involved, rather than explaining it from the outside.

Stage 2 adopted a phenomenological approach to explore the relationship in the lives of eight pairs of athletes and their coaches.

The purpose of the phenomenological approach is to illuminate the specific, to identify phenomena through how they are perceived by the participants in a situation. In the human sphere this normally translates into gathering 'deep' information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participant(s).

Phenomenology is concerned with the study of experience from the perspective of the individual, 'bracketing' taken-for-granted assumptions and usual ways of perceiving. Epistemologically, phenomenological approaches are based in a paradigm of personal knowledge and subjectivity, and emphasise the importance of personal perspective and interpretation.

As such they are powerful for understanding subjective experience, gaining insights into people's motivations and actions, and cutting through the clutter of taken-for-granted assumptions and conventional wisdom.

Phenomenological research has overlaps with other essentially qualitative approaches including ethnography, hermeneutics and symbolic interactionism. Pure phenomenological research seeks essentially to describe rather than explain, and to start from a perspective free from hypotheses or preconceptions (Husserl 1970). Phenomenological methods are particularly effective at bringing to the fore the experiences and perceptions of individuals from their own perspectives, and therefore at challenging structural or normative assumptions. Adding an interpretive dimension to phenomenological research, enabling it to be used as the basis for practical theory, allows it to inform, support or challenge policy and action.

The aim of this stage was to explore personal experiences and perceptions of the participants regarding the coach-athlete relationship. The use of this type of approach allows the researchers to get close to the participants personal world, to take in, (Conrad 1987) words, an "insider's" perspective. Thus, the participants are trying to make sense of their world and the researcher is trying to make sense of the participants trying to make sense of their world.

Selection of the participants

Current coaches and athletes were asked to participate in this study. The participants were recruited based in some pre-requisites, they had to be elite athletes from athletics, where the minimum to be considered was county level. The age of the participants was 16 plus, and the inclusion, exclusion criteria was based in whoever had more years of experience with the current coach.

Procedures

The aim in stage 2 was to interview 8 dyads; of which 4 were Portuguese and 4 were English. Both female and male coaches and athletes were included order to present a more complete sample. Firstly, participants were emailed to invite them to participate in the study. The email contained an outline of the study. A participant information sheet (see Appendix A), was attached to that mail providing with background information regarding the study before they consented to participate in the study, such as the purpose of the study, a description of what is involved in the study, as explanation of voluntary participation, issues regarding confidentiality and also the contact details for the researcher and supervisor. Also in attachment to this e-mail was a consent form to participate in the study (see Appendix B), which they were asked to read and sign if they agreed.

Interviews

Interviews are widely used method of data collection for qualitative inquiry in sport and exercise psychology research (Côté, Salmela et al. 1993). This study used semi-structured interview questions as a means of obtaining rich, detailed and diverse information from elite coaches and athletes regarding their views on their relationship.

Thus, given the focus of this study, the concentration of this study was on using interviews to collect qualitative data. Minichiello, Aroni et al. (1990) pp.96 argue that the strength of interviewing lies in its ability to highlight the participants descriptions of the phenomenon

and they are useful, *"to elicit and understand the significant experiences in the informants life"*. According to Schwandt (2007) pp.162, the interview process is *"a means of gaining direct access to an interviewee's experience"*. In depth, semi-structured interviews were used in the current study to better understand elite coaches and athletes perspectives of their relationship. The eight English interviews were conducted via Skype and the Portuguese interviews were conducted face to face. Regarding Portuguese interviews, they were done in Portuguese and then translated to English. With the permission of the participants, the interviews were digitally recorded. Interviews ranged from 30 to 60 minutes in length. The Interview schedule was focused in what makes up the ideal coach-athlete relationship, where issues like motivation, power relationship, cohesion, co-orientation, complementarity, compatibility, commitment and closeness were raised (See Appendix C).

The interview guide was "built" on the new conceptual model that was developed based on previous research compiled in the literature review. The aim of new conceptual model was to contribute to fill the gap in the existing coach-athlete relationship literature with an examination of elite coaches and athletes perspectives on what makes the coach athlete relationship.

Towards the end of the interview, it was reinforced to the participants the possibility to add relevant information that was not mentioned during the interview. Thus, time was given during the interview for new ideas to emerge. The participants were also asked for their availability to read after the interview all the record information with the aim of giving a general opinion about everything that has been said and to give the chance to correct any misunderstood. As the availability was confirmed, it was sorted out the best way to deliver all the information collected in the interview (in person and e-mail) as well as the delivery and collecting dates. (See interviews transcripts in Appendix D). Only two interview transcripts were included in the Appendix in order to protect the participants' confidentiality due to the fact that the community of elite coaches and athletes is small and minor details could give their identity away.

Data Analysis

The analysis of this part of the study begun in the field, at the time of interviewing, when problems and concepts that appeared were likely to help in understanding the situation.

The data for a qualitative study most often were notes jotted down in the field or during an interview from which the original comments, observations, and feelings were reconstructed or text transcribed from digital audio files. As Diamond (1992) suggested, the basic data are these observations and conversations, the actual words of people reproduced to the best of the researcher ability from the field notes.

Notes were written immediately after the interviews. Through the exercise of writing up field notes, I became aware of the nature of certain social relationships and cultural problems between the dyads. The themes that have emerged from the data helped to have a more accurate understanding of the research problem. Themes like, cultural differences, cohesion barriers, lack of support, etc. were very helpful to understand a few aspects of the coach-athlete relationship. The data was analysed inductively from meaning units to categories and themes, as well as deductively compared to previous research.

The data analysis emerged from this simple process of taking notes. The first formal analytical step was documentation. The various contacts, interviews, written documents, were preserved and saved. Documentation is critical to qualitative research for several reasons: It is essential for keeping track of what will be a rapidly growing volume of notes, digital files, and documents, it provides a way of developing and outlining the analytic process and it encourages ongoing conceptualizing and strategizing about the text.

The next step was to identify and refine important concepts like closeness, power, cultural differences, etc. This was a key part of the process of qualitative research, because in field research, a credible sense of understanding of social processes that reflects the researcher's awareness of participants' actions as well as their words, and of what they fail to state, feel deeply, and take for granted is the key. Afterwards, examining relationships and displaying the data, allowed to move from simple description of the participants and settings to explanations of why things happened as they did with those dyads.

Concluding this stage, a few conclusions, explanations and thoughts were provided about some aspects of participants' relationships and social life.

Ethics

Ethics refers to the correct rules of conduct necessary when carrying out research. Thus, as researchers, we have a moral responsibility to protect research participants from harm.

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However important the issue under investigation, psychologists need to remember that they have a duty to respect the rights and dignity of research participants. This means that they must abide by certain moral principles and rules of conduct.

Prior to the beginning of this study, the appropriate ethics review protocol forms were submitted and approved by the Head of Research Governance (HRG) at the University of Southampton. This research study was granted by the HRG approval on November 23, 2010 under the protocol reference number of 7672 (See Appendix E).

The second step was to outline to participants what the research was about, and then ask their consent (i.e. permission) to take part. Alongside with the consent forms an information sheet for participants (Appendix A) setting out information about the proposed study was sent by e-mail.

One of the most challenging aspects was to find a time and away of interviewing every England participant as they were always very busy with their training. So the best option was to do all the England interviews via skype on a time set by them and for the Portuguese interviews, I have travelled to Portugal and have arranged to interview the participants on the track, before the training sessions. Several thoughtful subjects were raised during the interviews like cultural differences, family issues, future aspirations and concerns, mix feelings, lack of support, sacrifices, frustrations, etc. So it was very emotional for me as I have dealt with some of the same problems in the past as an athlete and coach. So I could understand everything the participants were saying and the interviews just ran very naturally.

The participant's anonymity and confidentiality was maintained through the research project. All files and transcripts remain secured at the researcher's home. Only the researcher and the thesis supervisor have access to the data. All names and any other identifiable information were removed from the labelling and storage of the files and transcripts.

No financial compensation was offered for participation in this study, however, the participants hopefully experienced the benefit of contributing to this research area. There were no direct benefits and no perceived risks to the participants as a result of their involvement in this study.

Following the conclusion of the thesis a copy of it will be made available to all participants.

Stage 3

The aim of stage 3 was to explore and answer the research question number 2. So the aim was to develop a psychometric tool (see Appendix F), to refine it through factor analysis techniques and to conduct a pilot/application of the tool via a survey of a large group of coaches and athletes. This step would also allow me to undertake a cross cultural comparison. And therefore, a more positivistic approach was adopted.

Reasons for using quantitative research in this stage

Like Atlee and Atlee (1992) suggest some strengths of quantitative research are that it tests and validates theories that are presently constructed about how and sometimes why phenomena happen; the data collection process is fairly quick; data is precise and numerical; it allows for generalizability when data are drawn from fairly large random samples. Finally, quantitative studies do have strength in that they produce answers (if done properly) that are solid, unlike an opinion or common sense answer (Ratnesar and Mackenzie 2006).

Quantitative research methods are designed to produce statistically reliable data that tells us how many people do or think something. Quantitative data typically is in numerical form such as averages, ratios or ranges. This kind of methods are especially useful when carrying out a large scale needs assessment or baseline survey. It is independent of the researcher and one should get similar results no matter who carries out the research. It can also be used to measure trends.

Psychometric scale and benefits

The measurement scales, commonly used in educational research, are Likert-type responses on questionnaires, hence this research chose to select this format. The Likert scale is often used in social sciences and with questionnaires that ask people about attitudes, beliefs, and self-reported behaviours. Likert scales allow a participant to select a pre-determined response to a question that is easy for the researcher to quantify the degree of agreement, frequency or preference.

Likert scales are particularly effective because the ratings can be manipulated using measures of central tendency to reveal a general attitude or belief about a topic. The true Likert scale is a five item scale, but scales of any size especially seven or ten are often used. In psychometric practice, the majority of rating scales, Likert scales, and other

attitude and opinion measures contain either five or seven response categories (Bearden, Netmeyer et al. (1993); Shaw and Wright (1967)).

The typical Likert scale looks something like the following:

1. Strongly Disagree
2. Disagree
3. Neither agree/disagree
4. Agree
5. Strongly Agree

Symonds (1924) was the first to suggest that reliability is optimized with seven response categories, and other investigations tended to agree (Ghiselli 1955). In an influential review article, Miller (1956) argued that the human mind has a span of absolute judgment that can distinguish about seven distinct categories, a span of immediate memory for about seven items, and a span of attention that can encompass about six objects at a time, which suggested that any increase in number of response categories beyond six or seven might be futile. Odd numbers of response categories have generally been preferred to even numbers because they allow the middle category to be interpreted as a neutral point, and more recent research (Green and Rao 1970) has tended to reinforce the general preference for five point or seven point scales. Thus, a five point scale was chosen for this study as this form of scaling usually provides an adequate distribution of responses without overwhelming subjects with too many options (Comrey 1988). For each statement participants responded on a five point Likert, scale ranging from strongly disagree (Janice M. Morse, Swanson et al.) to strongly agree (five).

Data Collection and Sampling

Questionnaires are the most commonly used method of data collection in field research (Stone 1978). Over the past several decades hundreds of scales have been developed to assess various attitudes, perceptions or opinions of organizational members in order to examine a priori hypothesized relationships with other constructs or behaviours. In this particular study a questionnaire was also developed according to three basic stages.

Schwab (1980) suggest that the development of measures falls into three basic steps:

1. Step 1 is item development, or the generation of individual items. In item generation, the primary concern is content validity, which may be viewed as the minimum psychometric requirement for measurement adequacy and is the first step in construct validation of a new measure (Schriesheim, Powers et al. 1993).
2. Step 2 is scale development, or the manner in which items are combined to form scales. At this stage of the process the researcher has identified a potential set of items for the construct or constructs under consideration. The next step is the administration of these items to examine how well they confirmed expectations about the structure of the measure. This process includes an assessment of the psychometric properties of the scale which will be followed by an examination of its relationship with other variables of interest.
3. Step 3 is scale evaluation, or the psychometric examination of the new measure.

Sampling

The target population for presenting this instrument was Coaches and athletes from England and Portugal. The aim of this procedure was to evaluate the questions. This instrument was administered to a convenience sample of 102 Coaches and athletes from both Countries.

Several authors have argued about the number of subjects that is adequate for scale construction and the related statistical analysis. MacCallum, Widaman et al. (1999) suggested that the minimum sample size depends upon the nature of the data itself, most notably its “strength”. Strong data is data in which item communalities are consistently high (in the order of 0.80 or above), factors exhibit high loadings on a substantial number of items (at least three or four) and the number of factors is small. One of the primary concerns was to get a balance of England and Portugal participants, so that this psychometric scale was equally valid for both England and Portugal samples and also, so that I could use this sample for the comparison in stage 4.

Methods

The methods that were used to collect the primary data were an online survey. This survey lead a total of 64 questions, allocated into 8 different constructs (Cohesion, Closeness, Power, Complementarity, Commitment, Compatibility, Co-orientation and Motivation). As it was mentioned previously, the items for these 64 questions emerged from the interviews, and many of the items used in the survey were the participants own

words. The aim of this survey was to choose the best questions to develop the final questionnaire. In order to choose the best questions this study used Factor analysis. Used properly, factor analysis can yield much useful information. In particular, this technique can be used to explore the data for patterns, confirm our hypotheses, or reduce the many variables to a more manageable number. Table 9 shows the allocation of the 64 questions into the eight constructs.

Table 9 Allocation of questions into 8 constructs

COHESION	<p>Cultural differences are a barrier in my relationship with my coach/athlete</p> <p>We work as a team</p> <p>Distance is a barrier in my relationship with my coach/athlete</p> <p>I have different goals than my coach/athlete</p> <p>My coach/athlete puts a lot of pressure on me</p> <p>My coach/athlete makes me false promises</p> <p>My time for trainings is limited</p> <p>My relationship with my coach/athlete is more important than achieving the goal</p>
CLOSENESS	<p>I trust my coach/athlete</p> <p>I am close to my coach/athlete</p> <p>I have difficulties in expressing my feelings with my coach/athlete</p> <p>I like my coach/athlete</p> <p>I consider my coach/athlete as family</p> <p>My coach/athlete makes me feel special</p> <p>My coach/athlete gives me personal support</p> <p>My coach provides a safe environment for his athletes/I provide a safe environment for my athlete</p>
POWER	<p>I discuss everything beforehand with my coach/athlete</p> <p>My coach made me sign a contract/My athlete had to sign a contract</p> <p>My coach/athlete listens to what I have to say</p> <p>My coach/athlete influences my decisions</p> <p>My coach/athlete lets me set my/his goals</p> <p>My coach punishes his athletes/I punish my athletes</p> <p>I see my coach/athlete as a leader</p> <p>I recognize my coach's authority/Athletes recognize my authority</p>
COMPLEMENTARITY	<p>When I am coached by my coach/coaching my athlete I always work to the max</p> <p>When I am coached by my coach/coaching my athlete I am at ease</p>

	<p>When I am coached by my coach/coaching my athlete I am ready to do my best</p> <p>We talk about our sport future</p> <p>When I am coached by my coach/coaching my athlete I am responsive for his/her efforts</p> <p>My coach/athlete and I are always very focused</p> <p>We share the same passion regarding sports</p> <p>My coach plans everything in advance/I plan everything in advance</p>
COMMITMENT	<p>I am committed to my coach/athlete</p> <p>I think my sport career is promising with my coach/athlete</p> <p>My coach/ athlete is always available for me</p> <p>I am 100% committed to my coach/athlete</p> <p>I do personal sacrifices to achieve my goal</p> <p>I always do my best in every session</p> <p>I am capable of doing anything to achieve my goals</p> <p>My coach/athlete refuses any kind of commitment</p>
COMPATIBILITY	<p>My coach/athlete it is not easy to talk to</p> <p>My coach/athlete and I, we have distinct personalities</p> <p>There are specific things about my personality and my coach's/athlete's personality that create the perfect relationship</p> <p>I share the same beliefs as my coach/athlete</p> <p>My coach/athlete takes into account my needs</p> <p>I believe it is important to have a personality match between the coach and the athlete</p> <p>My coach/athlete interacts with me all the time</p> <p>My coach/athlete gives me a lot of feedback during training</p>
CO-ORIENTATION	<p>My communication with my coach/athlete is excellent</p> <p>I love my coaches'/athlete' excitement towards training</p> <p>I understand my coach/athlete</p> <p>My coach/athlete understands me</p> <p>I know my coach'/athlete' strong points</p> <p>I know my coach'/athlete' weak points</p> <p>I agree with my coach's/athlete's views</p> <p>I strive to achieve similar goals with my coach/athlete</p>
MOTIVATION	<p>We motivate each other all the time</p> <p>My coach/athlete inspires me</p> <p>We both want to succeed</p> <p>I want to gain social recognition</p> <p>I am self-motivated</p>

	My coach/athlete keeps my motivation high I have more to prove to others than my coach/athlete My motivation comes from my results
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Factor analysis

Factor analysis is a collection of methods used as a reduction technique. It takes a large set of variables and looks for a way the data may be reduced or summarised using a smaller set of factors or components (Pallant 2007).

According to Pallant (2007) there are basically two main approaches to factor analysis: Exploratory and Confirmatory.

- Exploratory factor analysis (EFA) is often used in the early stages of research to gather information about (explore) the interrelationships among a set of variables. Thus, attempts to discover the nature of the constructs influencing a set of responses.
- Confirmatory factor analysis (CFA) on the other hand, is a more complex and sophisticated set of techniques used later in the research process to test (confirm) specific hypotheses or theories concerning the structure underlying a set of variables. In conclusion, tests whether a specified set of constructs is influencing responses in a predicted way. In this particular case Confirmatory factor analysis was used.

Confirmatory Factor Analysis

CFA allows the researcher to test the hypothesis that a relationship between the observed variables and their underlying latent construct(s) exists. The researcher uses knowledge of the theory, empirical research, or both, postulates the relationship pattern a priori and then tests the hypothesis statistically. Thus, CFA requires a strong empirical or conceptual foundation to guide the specification and evaluation of the factor model.

The use of CFA could be impacted by:

- the research hypothesis being testing
- the requirement of sufficient sample size
- measurement instruments
- multivariate normality
- parameter identification
- outliers
- missing data

- Interpretation of model fit indices (Schumacker and Lomax 1996)

Steps involved in factor analysis

Step 1- assessment of the suitability of the data for factor analysis

There were two main issues that were considered to determine if the data was suitable for factor analysis, the sample size and the strength of the relationship among the variables. Several authors recommend generally that, the larger sample the better, however they do concede that a smaller sample size should be sufficient if solutions have several high loading marker variables (above .80)(MacCallum, Widaman et al. 1999).

The second issue to be addressed concerns the strength of the inter-correlations among the items. Tabachnick and Fidell (2007) recommended an inspection of the correlation matrix for evidence of coefficients greater than .3.

Reliability & Validity

The **Reliability** of scale indicates how free it is from random error (Pallant 2007).

Reliability in the consistency of the measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of the measurement. A measure is considered reliable if a person's score on the same test given twice is similar.

According to Pallant (2007) there are two frequently indicators of a scale's reliability: test-retest reliability and internal consistency.

Test/Retest:

Test/retest is the more conservative method to estimate reliability. Simply put, the idea behind test/retest is that you should get the same score on test one as you do on test two. The three main components to this method are as follows:

1. implement your measurement instrument at two separate times for each subject;
2. compute the correlation between the two separate measurements; and
3. Assume there is no change in the underlying condition (or trait you are trying to measure) between test one and test two.

Future research will need to explore reliability in more detail.

Internal Consistency:

Internal consistency estimates reliability by grouping questions in a questionnaire that measure the same concept.

The primary difference between test/retest and internal consistency estimates of reliability is that test/retest involves two administrations of the measurement instrument, whereas the internal consistency method involves only one administration of that instrument.

For several decades, the term “internal consistency” of a test has been associated with different meanings, including homogeneity, interrelatedness, general factor saturation and internal consistency reliability. It poses difficulties in concept use and interpretation of results as well as hampering the development of new and better indices for measuring internal consistency. Based on the review of existing definitions, internal consistency can, thus, be defined as a psychometric property of a test that is associated with the degree of interitem correlations and the general factor saturation, and independent of test length. Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: 1 = poor, 5 = excellent). The higher the score, the more reliable the generated scale is. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. Common guidelines for evaluating Cronbach's Alpha are:

- .00 to .69 = Poor
- .70 to .79 = Fair
- .80 to .89 = Good
- .90 to .99 = Excellent/Strong

In this particular study, According to Table 10, the Coach-Athlete Relationship scale has excellent internal consistency, with a Cronbach alpha coefficient reported of 0.987 (See Appendix G).

Table 10 Reliability of the Coach-Athlete relationship for the 64 items scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on	N of Items

	Standardized Items	
.987	.987	64\

Validity of a scale refers to the degree to which it measures what it is supposed to measure, in short, is the strength of the conclusions, inferences or propositions.

Validity refers to the accuracy, or correctness of measurement.(Edward and Richard 1979) Edward and Richard (1979), contend that validity concerns the crucial relationship between concept and indicator. Construct validity relates to the adequacy with which a measure or scale has sampled from the intended universe or domain of content. (Pallant 2007) Construct validity is theoretically and philosophically based and is concerned with whether or not survey questions measure the constructs intended for measurement. Construct validity involves testing a scale not against a single criterion but in terms of theoretically derived hypotheses concerning the nature of the underlying variable or construct (Pallant 2007).

In this particular study validity was partially achieved by using the participants' statements from the interviews, and also, theoretically from the conceptual framework that was developed.

Step 2 - Factor extraction

Factor extraction involves determining the smallest number of factors that can be used to best represent the interrelations among the set of variables. There are a variety of approaches that can be used to extract the number of underlying factors or dimensions:

- Principal components
- Principal axis
- Image factoring
- Maximum likelihood factoring
- Alpha factoring
- Unweighted least squares
- Generalised least squares

The approach used for this stage was principle axis factoring. Kline (2002) suggests that principle axis is suitable when you are confirming a model or developing a scale.

Step 3 – Factor rotation and interpretation

Once the numbers of factors was determined, the next step was to try to interpret them. To assist in this process, the factors are usually rotated. There are two main approaches to rotation, resulting in either orthogonal (constructs are not correlated) or oblique (provides information about the degree of correlation between factors).

In this study several factor analysis were performed but there was no need to rotate for interpretation since each of the scales was one factor.

Ethical Considerations

The Ethics procedure in this stage was similar to Stage 2.

The main ethical problem aroused in this stage, regarding the collection of a good sample size. In terms of sampling procedure, Altman (1980) suggests that ethical issues arise in two ways. First, if the sample is too large, this entails the unnecessary involvement of additional people, wasting people's time and causing possible harm through, for instance, unnecessary testing, not to mention incurring additional costs. Secondly, if too small a sample is chosen the study may well be unable to detect results of practical importance, and so be a complete waste of time, resources, and possibly good-will. So to overcome this issue the online survey was left more time available than was initially planned and some sport clubs from the England and Portugal were made aware by e-mail that this survey was online.

Every effort was made by the researcher to ensure the protection of research participants.

Stage 4

The aim of Stage 4 was to undertake a multivariate analysis of the relations and differences between Portugal and England using the data from the previous stage. Looking at relationships between constructs and then looking at differences between England and Portugal. Multivariate analysis of the relations refers to any statistical technique used to analyse data that arises from more than one variable. This essentially models reality where each situation, product, or decision involves more than a single variable. Usually, multivariate analysis methods are typically used for research and development.

The aim of using multivariate analysis in this study was to be able to predict outcomes based on prior information. Using this type of methods allowed us the examination of

richer and perhaps more realistic designs than can be assessed with traditional univariate methods that only analyse one outcome variable and usually just one or two independent variables.

The specific advantages of multivariate studies are as follow:

1. They resemble closely how the researcher thinks about the data;
2. They allow easier visualization and interpretation of the data;
3. More data can be analysed simultaneously, thereby providing greater statistical power;
4. Regression models can give more insight into relationships between variables;
5. The focus is on relationships among variables rather than on isolated individual factors.

The method of Multivariate analysis that was used in this stage was MANOVA and Correlations. The same data set of the previous stage was used, however some items were omitted, as they did not survived the factor analysis process.

In this particular stage the focus was to look at correlations between the eight constructs and also analysing the differences between sub groups, like males and females from England and Portugal, coaches and athletes from England, coaches and athletes from Portugal, England coaches and PT coaches and also England athletes and PT athletes.

In this study, it was of interest to compare groups on a range of different constructs. To be able to do that, a Multivariate analysis of variance (MANOVA) was performed. A MANOVA compares the groups and tell us whether the mean differences between the groups on the combination of dependent variables are likely to have occurred by chance. And also, the MANOVA will tell us if there is a significant difference between the groups on the composite dependent variable.

Correlation analysis is used to describe the strength and direction of the linear relationship between two variables. The first step in this stage was to check the information about the sample, to see if there was any missing data. The second step was to determine the direction of the relationship between the variables, to see if there was any negative correlation between the variables. The third step was to determine the strength of the

Chapter Four

relationship. This can range from -1.00 to 1.00. This value will indicate the strength of the relationship between the variables. Cohen (1988) suggested the following guidelines:

- Small $r=.1$ to $.29$
- Medium $r=.30$ to $.49$
- Large $r=.50$ to 1.0

This is discussed further in chapter six.

Chapter Summary

The integration of quantitative and qualitative data in the form of a mixed methods study had shown great potential to strengthen the rigor and enrich the analysis and findings of this research study. Having said that, rigorous procedures in collecting and analysing appropriate data were used, such as appropriate sample size for qualitative and quantitative analysis. Also, framing the procedures within philosophical/theoretical models of research, and the conception a new research model that was developed to understand different perspectives on a single issue, “what makes up the coach-athlete relationship”.

Qualitative interviews were conducted with 16 coaches and athletes from both Portugal and England to explore the theme identified in the CAR model. These views were then used to create the CARI- an online questionnaire. This online questionnaire was submitted into two different countries, with the aim of analysing the coach athlete relationship. Several procedures were conducted such as checking the reliability and validity of the scale, checking the internal consistency, factorial analysis to choose the best questions and a multivariate analysis of the relations was also conducted to look at relationships between constructs and then looking at differences between England and Portugal.

The results and findings can be seen in the next two chapters.

Chapter Five

Interviews' Analysis

This chapter was organized into two sections: profile of the study's participants were included in the first section, and the second section consists of the researchers' interpretations of the findings, integrated with previously published literature.

The purpose of this study was to explore coaches' and athletes' perspectives of the coach-athlete relationship. The sixteen participants that were introduced in the previous section, were given the opportunity during semi-structured interviews to share their perspectives regarding the coach-athlete relationship. All interviews were digitally recorded and transcribed verbatim. Using a qualitative methodology of inquiry, data was analysed inductively from meaning units to categories and themes, as well as deductively compared to previous research.

Regarding the opening questions, participants were questioned about their culture, identity and relationship with their coach/athlete, with the aim of getting to know them better. These open-ended questions, allowed coaches and athletes to discuss their own interpretation, meaning and understanding of this theme based on their own coaching and athletes experiences.

Following data analysis, two major categories were identified: Attitudes towards sport (coach and athlete) and the coach-athlete relationship. Each of these Categories and the associated sub categories were explored in greater detail in the remainder of this chapter.

Study Participants

Eight current athletic coaches plus eight athletes of two different cultures, Portugal and England participated in the study. All of the above were considered to be at the elite level. The sample was chosen based on their years of experience, achievements and they had to be competing at county level or above. The profiles that follow provide information about each participant including their experience and accomplishments. Pseudonyms were given to each participant and will be used for the rest of this document.

Coaches' profiles

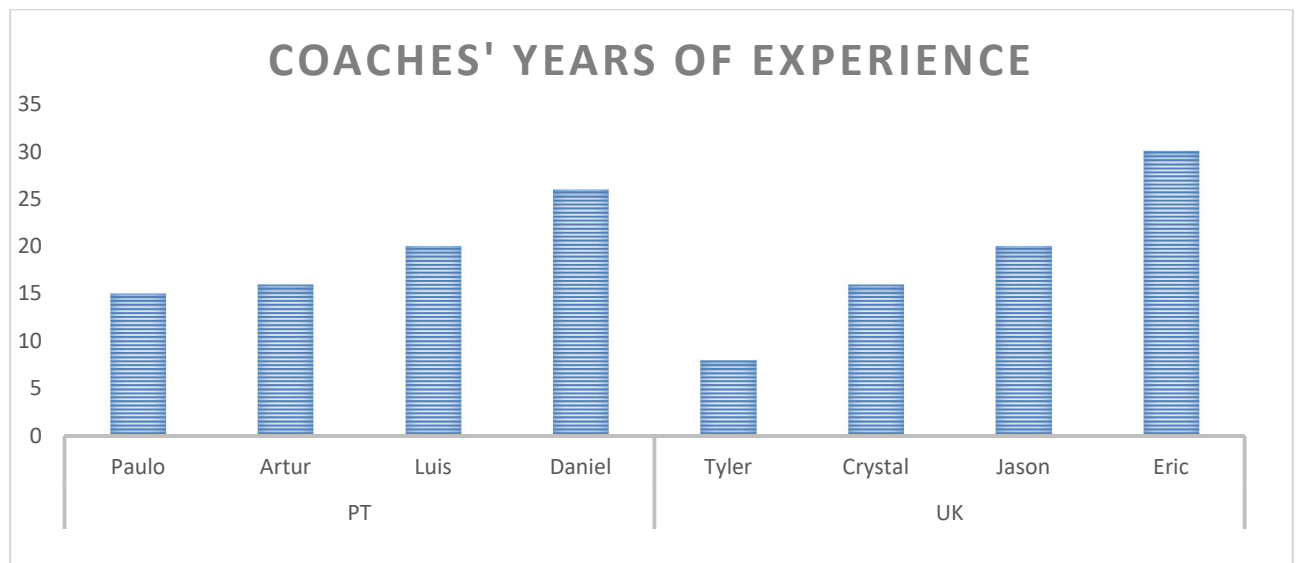


Figure 6 England and PT coaches' years of Athletics experience

The Portuguese coaches' experience varies between 15 to 26 years. On the other hand the experience of England coaches varies between 8 and 30 years. The coaches came from a diverse range of athletics disciplines: including Pole vault, Discus, Hammer, Javelin and Sprinting.

Athletes' profiles

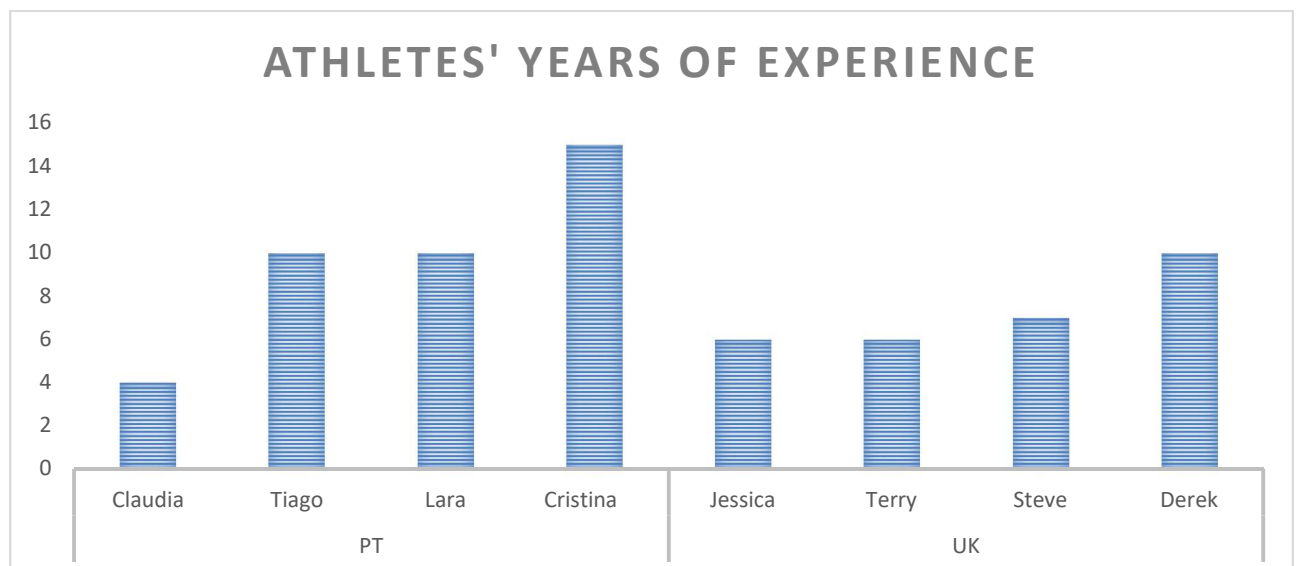


Figure 7 England and PT athletes' years of Athletics experience

The Portuguese athletes' experience varies between 4 to 15 years. On the other hand the experience of England athletes varies between 6 and 10 years. The athletes came from a

diverse range of athletics disciplines, including of Pole vault, Javelin, Sprinting, Marathons, Half marathons, Discus and High Jump.

Interview Findings and Discussion

Part 1. Participants attitudes towards sport

This section was divided in several sub-categories that aimed to show the participants' attitudes towards sport.

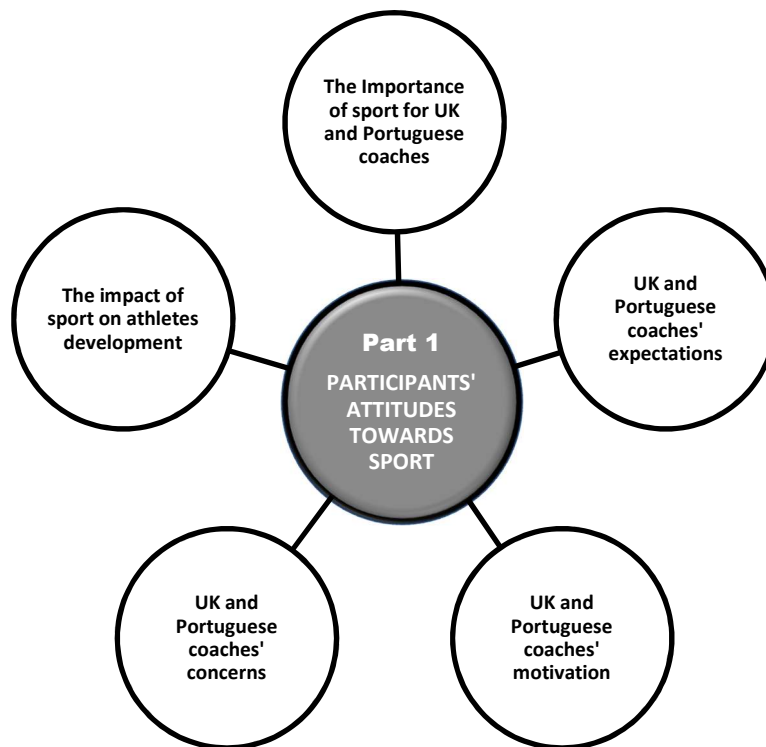


Figure 8 Participants' attitudes towards Sport

Sport and athletics are a world-wide phenomenon. They cross a wide variety of human boundaries, including political, social, economic, ethnic, etc., and they have become an important element of modern culture. These eight elite sport coaches explained in first-hand the demands, fears and expectations they have to face every day.

They have explained that nowadays coaches are going to rough times, because they are being put into situations that they are not trained to handle. Most of the times, they have to be not just a coach, but a friend, a parent, a psychologist, etc.

After going through these eight interviews it could be outlined some positive and negative aspects of the coaches' statements. Focusing on the English coaches first, Tyler, Jason, Crystal and Eric, they have outlined several positive aspects like, their expectations for the

near future, their athlete qualities, what keeps them motivated, the ideal coach, etc. Each one of them have answered the open ended questions based on their own coaching philosophy and experiences, thus, it is not surprising that coaches described divergent views about coaching, but all of them agreed regarding the importance of sport in their lives.

Sub-categories:

1.1 The importance of sport for England and Portuguese coaches



Figure 9 Importance of Sport for England coaches

England coaches see athletics as a way of making a difference in someone's lives, they coach because that's part of who they are, because they feel happy and mentally fit. They think that Sport is very important to people of all ages.

Sport will provide people with much needed physical exercise which can lead to better health and a better functioning body. For England coaches, sport not only provide a means to get healthier, but also provide people with fun recreation. For them, sport is important because it teaches people of all ages the importance of team work. Not only this but it also gives people a sense of competition, and teaches one another good sportsmanship. Coaches in this study identified the importance of developing the athlete's holistic health in the following ways: recognizing the athlete as a person, acknowledging

the athlete's life outside sport, focusing on combining the body, mind and spirit, as well as emphasizing the importance of psychological technical, tactical and nutritional health.

For England coaches one of the most important thing is to pass on good values to their athletes "you are not just coaching a couple of athletes, in a lot of ways you are coaching them to be good people..." (Eric, England coach)

Another England coach also emphasized the importance of sport " *it is significant in what it gives to a person, because it gives life skills, it gives self-esteem, it helps in a lot of different ways than sport. It delivers discipline, respect for yourself, work, commitment, oh lots of things.*" (Crystal, England coach)

Comparable findings emerged from Allen (2014) study, where coaches could often become a parental role model for those they teach and lead. Because of the unique relationship between players and coaches, it is possible that athletes may look to their coaches for guidance, reassurance, and direction.

On the other hand, Portuguese coaches have shown that sport is pretty much everything in their lives, they seem to be more emotional when they talk about athletics. In sum, **Athletics its part of their identity.**

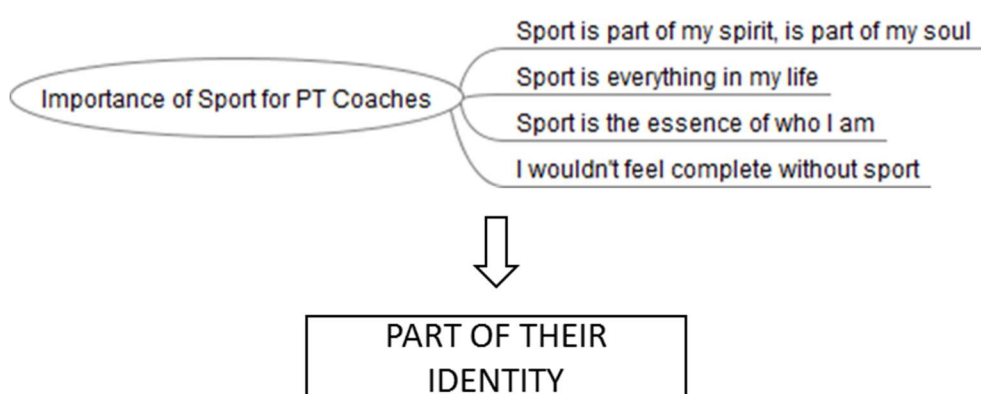


Figure 10 Importance of Sport for Portuguese coaches

During the interview I also realised that they were very passionate for what they do, but at the same time it seems to me that they don't feel enough support in terms of money wise. All of them have a full time job as a PE teacher and the rest of their "free" time they've spent on the track. To be a Full-time coach is a privilege of just a few. So they see Athletics as part of who they are and not so much as a Job.

“sport is basically the essence of who I am. I wouldn’t be who I am without sport, especially at this moment with my son, I would renounce everything for him but I wouldn’t feel complete without sport for sure.” (Daniel, PT coach)

1.2 England and Portuguese coaches' expectations

All over the world people have expectations, qualities, fears and most of all they are moved by different things all the time. England coaches are not an exception. In all eight interviews coaches' have shown that they really care about their athletes, that they have high expectations on them, and that they feel very motivated to be successful. As an example of those high expectations, an English Coach, Tyler revealed that he expects to see his athlete with full commitment.

“..., I just expect him being absolutely commitment to the cause” (Tyler, England coach)

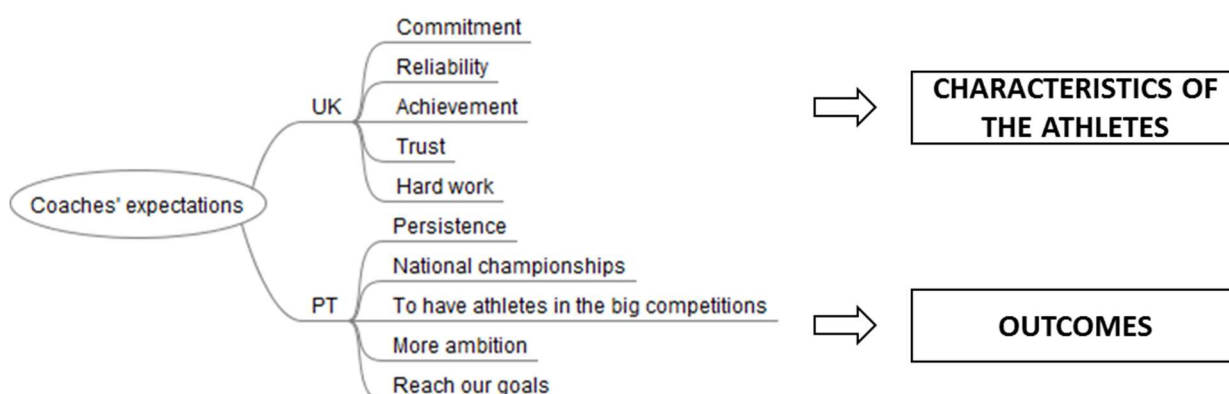


Figure 11 England and Portuguese coaches' expectations

Most of the Portuguese coaches that took part in this sample seem to have less expectations about their athletes than England coaches. For what I could realize during the interviews, it is very hard in Portugal to keep training the same amount of hours after the athletes have entering in the University. Universities are very demanding, that means that time for training is very limited, and coaches know that, and as a consequence a lot of athletes quit sport because they can’t handle the pressure.

“Well I think if she could fit her social, academic and personal life in trainings in a positive way, she could break the national record, I’m talking about a distance of 60 meters at least and that is the mark to reach the Olympic Games. And maybe in that day she could be in the last 15 or 12 best athletes in the world that would be amazing.” (Daniel, PT coach)

Once again regarding Daniel's statement it could be seen that is very hard to be a full time athlete in Portugal, his athlete needs to work to be able to pay her university and to be an athlete.

England and Portuguese coaches as we can see, made countless references of their athletes. They've spoke very passionately and in great detail and length about them, often recalling multiple stories of their expectations and experiences together, although England coaches demonstrated higher expectations regarding their athletes. In sum, **English coaches** are more focused on the characteristics of the athletes and **Portuguese coaches** are more focused on outcomes.

1.3 England and Portuguese coaches' motivation

Also the issue around coaches' motivation was raised, all of them agreed that they can have a major effect on the motivation of their athletes by the example that they set on themselves.

During the interviews, this theme became quite enthusiastic as many coaches had very strong opinions. No doubt there are many ways to motivate and inspire others, but these coaches motivation in particular comes from several aspects.

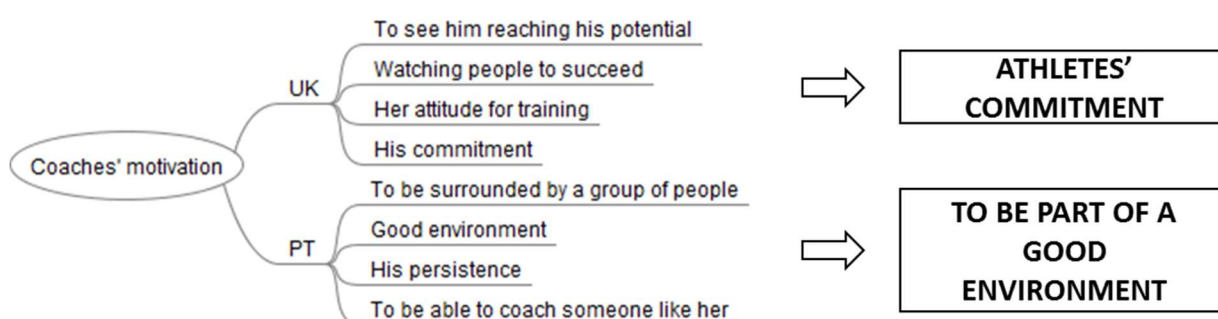


Figure 12 England and Portuguese coaches' motivation

England coaches were very positive when they were talking about their motivation, the most important aspect of their statements were *"I enjoy watching people to succeed"*. (Eric, England coach)

Every single coach sounded very motivated. During the interviews they have spoke passionately about their athletes and their sport. It was clear to me that motivation was without a doubt the driving force behind all of their actions. Although the issue about lack of motivation was also raised by a Portuguese coach, *"many times they compete and I need to ring them to ask if things went well, because they forget to call me. I know there is*

something wrong and I need to fix it. But, I don't think they do this intentionally, is just the athletes have this selfishness so they forgot... they are very egocentric...." (Luis, PT coach) So this particular coach feels less motivated when things like this happen.

In sum, **England and Portuguese coaches** get their everyday motivation **from the effort and commitment** their athletes put in every training. Also for **Portuguese coaches**, a big part of their motivation comes from the feeling of being part of a **good environment** within the group they coach.

1.4 England and Portuguese coaches' concerns

At the same time they've spoke about their driven, they've also went on talking about their concerns.

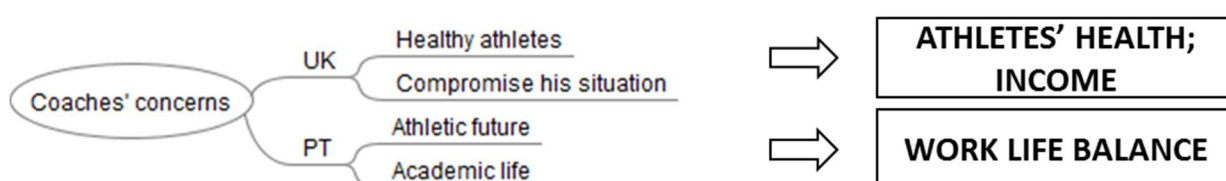


Figure 13 England and Portuguese coaches' concerns

Coaches were concerned with the dual role they face, to develop athletes and produce results. So developing healthy athletes especially the psychological capacities to achieve performance excellence is a large concern.

"The psychological capacities are very important and they can only be develop in trainings if, the coach has this concern." (Paulo, PT coach)

Another issue that was raised when talking about coaches' concerns was the athlete's diet, especially regarding female athletes. Inadequate dietary intake is the primary nutritional concern for Eric, as their athletes fail to consume enough energy to support the physical demands of training, they become at risk for disordered eating, amenorrhea, and osteoporosis. This particular coach addresses nutritional concerns of his female athletes. But as he has explained he tries to show them that the amount of training they do is enough to keep them fit. *"with several of my girls athletes was the diet bit or lack of diet more accuracy, they are very concerned about the shape and the figure and the looks, you need to get them through that."* (Eric, England coach)

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This statement match Plateau, McDermott et al. (2014) were Just over half of the coaches ($n = 6$) identified changes to eating attitudes and behaviours as markers of disordered eating in female athletes.

England coaches reveal completely different concerns than Portuguese coaches. For instance one major concern for Portuguese coaches is when athletes get into University because they need to keep their athletes even more motivated and organized to be able to do both things well. It is very difficult for Portuguese athletes to balance the time for training, diet, work, studies and social life.

“He is an athlete but also a student, he is in university, and this is his first year, so, he wants to go to parties and he wants to go everywhere. The problem is, that sometimes he lets himself carry away by those moments and that has interference in the trainings sessions of the following day or of the entire week”. (Paulo, PT coach)

On the other hand, England coaches have more concerns about their athletes' achieving their goals, because they are family providers, so they have to succeed no matter what, athletics is their only income, and when there is no family support, sometimes coaches are the only people that athletes' can rely on.

“Unfortunately he didn't have any family support, so he decided to run away...”...we became a little bit of a family now...” (Crystal, England coach)

“...he has to achieve, in this moment is not just about what he wants to achieve it, his got to the point that he has to achieve it simply because he needs to make a living to provide for his family and he has no other skills other than that. And that's actually quite hard, the economic side of it, it is not easy to just jump out of nowhere and make money to survive, and buy a house and things like that. Do you know what I mean? It became a necessity rather than a goal. So it is one of these situations that is working hard but he really loves what he is doing...” (Crystal, England coach)

In sum, England coaches worry about their athletes' health, because as they are family providers if they injured themselves they can put their career at risk, and lose their job. Regarding Portuguese coaches, the concerns are more about a work life balance, as athletics is a career for just a few.

1.5 The impact of sport on athletes development

It is impressive how athletes talked about sport, and the importance of it in their lives. All of them were unanimous in saying that sport was part of their lives and that they couldn't live without it.

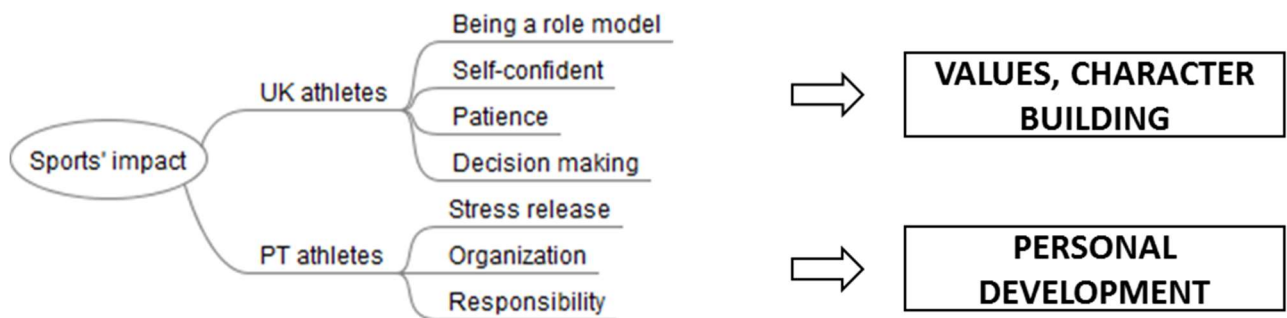


Figure 14 Sports' impact for PT and England athletes

Sports for these athletes is a way of personal development, it teaches you values such as dedication, discipline and responsibility. Sports gives life changing attributes, like character building, constructive use of time, health, decision-making, self-confidence, socializing, etc.

"...it teaches you so many things, about patience, tenacity, being a good role model, just having a good lifestyle..." (Derek, England athlete) and also makes the athletes feel grateful for the kind of person they've become.

"I also would like to give to athletic, give back to the local community because as I said earlier, this career as given me a platform to kind of develop myself to open a lot of doors and opportunities and for me it is important to give back to the sport..." (Derek, England athlete)

In sum, sports for these athletes, helps much more than in the physical aspects. It builds character, teaches strategic thinking, analytical thinking, leadership skills, goal setting and risk taking.

Part 2. The coach-athlete relationship

The second theme that emerged from the coaches' and athletes' interviews focused on what makes up the coach-athlete relationship. The coach-athlete relationship is fundamental in enhancing sport performance, the effectiveness of a coach, and the

development of an athlete. According to coaches' perspectives, a positive coach-athlete relationship enables coaches to influence athletes in sport and life in a constructive way.

Sub-categories:

The sub-categories that emerged from the interviews regarding the coach-athlete relationship (CAR) are as follow:

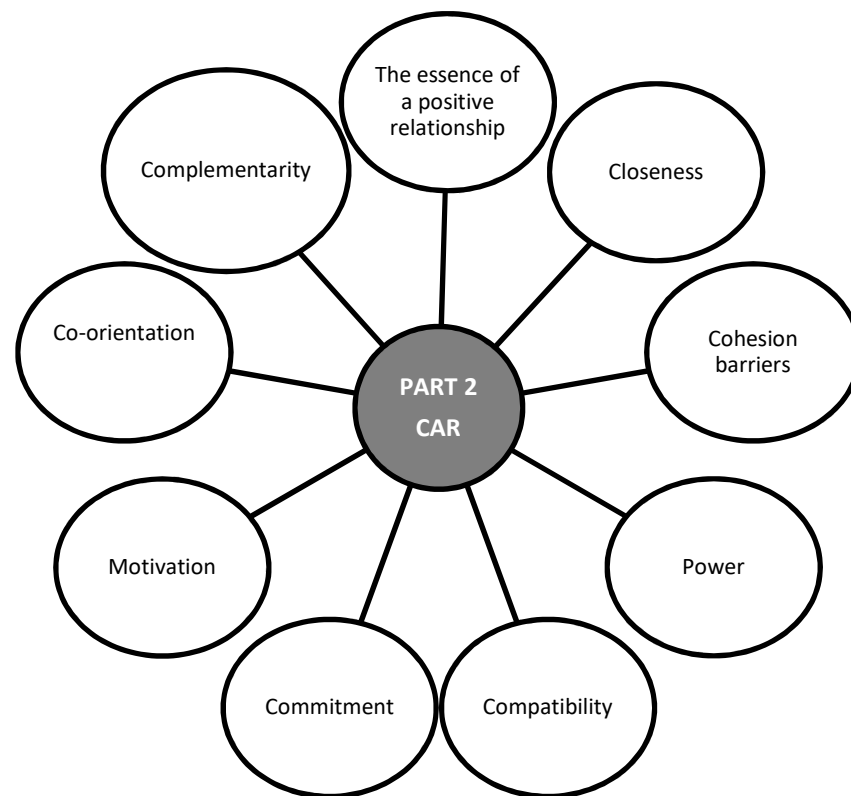


Figure 15 sub-categories of the Coach-Athlete Relationship (CAR)

2.1 The essence of a positive relationship

Relationships are a central source of life satisfaction, enrichment, development, and personal growth for individuals (Bakalis 2001). It also builds on a positive sociological lens (Bandura 1986) that suggests that certain patterns of relationships are more generative, enriching, and enhancing than others. Relationships are central to the meaning and being of life.

A positive relationship is about coaches connecting with their athletes. During the interviews coaches and athletes were asked their opinion about a positive relationship and also to reflect about their current partnership.

In this particular study, regarding coaches' views, positive relationships require management, effort, and attention, but the investment pays off in many ways. Special bonds with their athletes are important for both mental and physical health.

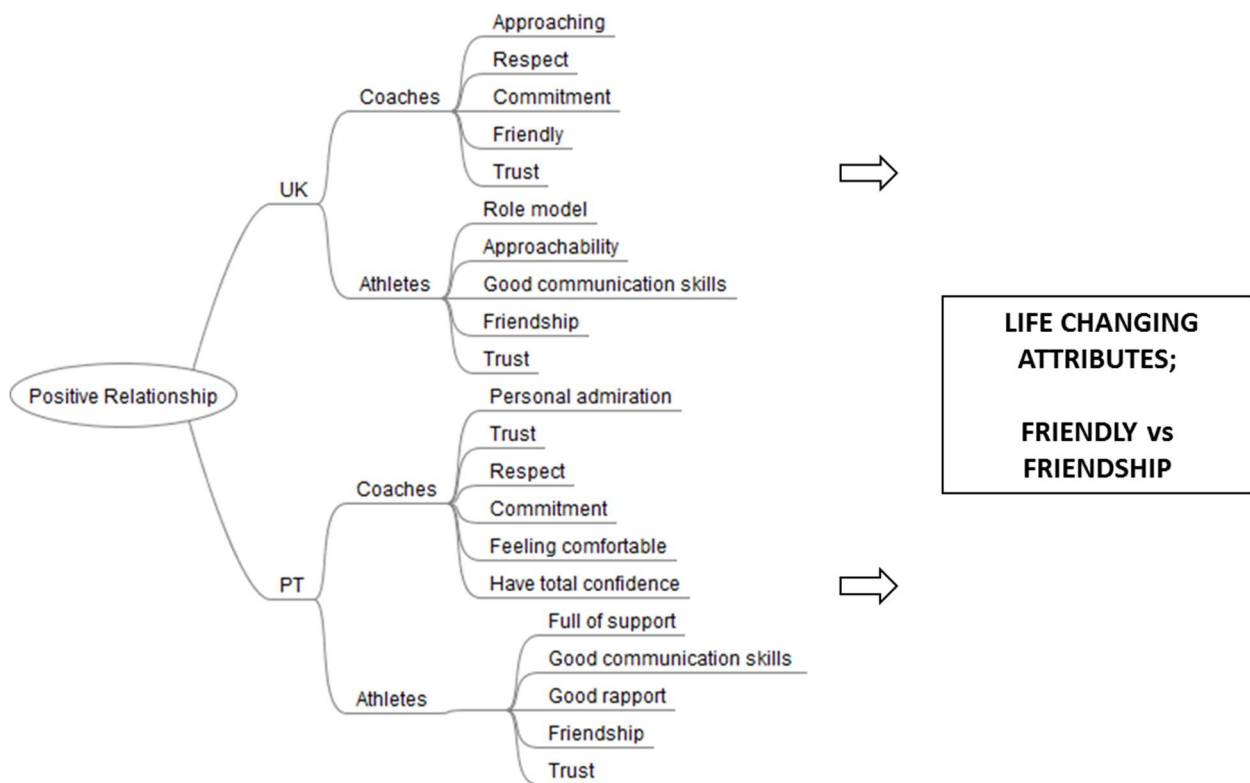


Figure 16 Coaches and athletes perspectives of a positive relationship

For England and Portuguese coaches, it is important for them build positive relationships, which can act as the glue that cements their athletes to the cause and binds them together as a team. Such positive relationships create an environment where athletes feel that they are being taken care of. It was very interesting to see that coaches and athletes believed that trust was a very important aspect of their relationship.

“a positive relationship is a relationship where there is no difficulties, where the athlete feels comfortable in telling the coach everything about his personal and training life. Any kind of trouble the athlete has, he will tell the coach, he will trust him all the time...” (Artur, PT coach)

“is one where you can trust your coach completely” (Derek, England athlete)

And a difference between coaches and athletes was that coaches think that Respect, Commitment and being friendly are very important elements to build a positive relationship

while athletes believe that a positive relationship should be based on friendship and good communications skills.

“a relationship full of support, friendship, trust and fellowship.” (Claudia, PT athlete)

These findings match a study by Becker (2009). She stated that, athletes experienced coaches who were not only open to conversation, but who were also good listeners, also, athletes discussed how their coaches made themselves accessible, but also approachable.

2.2 Closeness

If a coach is to develop a strong coach athlete relationship, they have to develop a firm emotional bond with their athletes. According to these coaches and athletes this bond needs to be based on trust, support and respect. In other words they need to feel close in every single way.

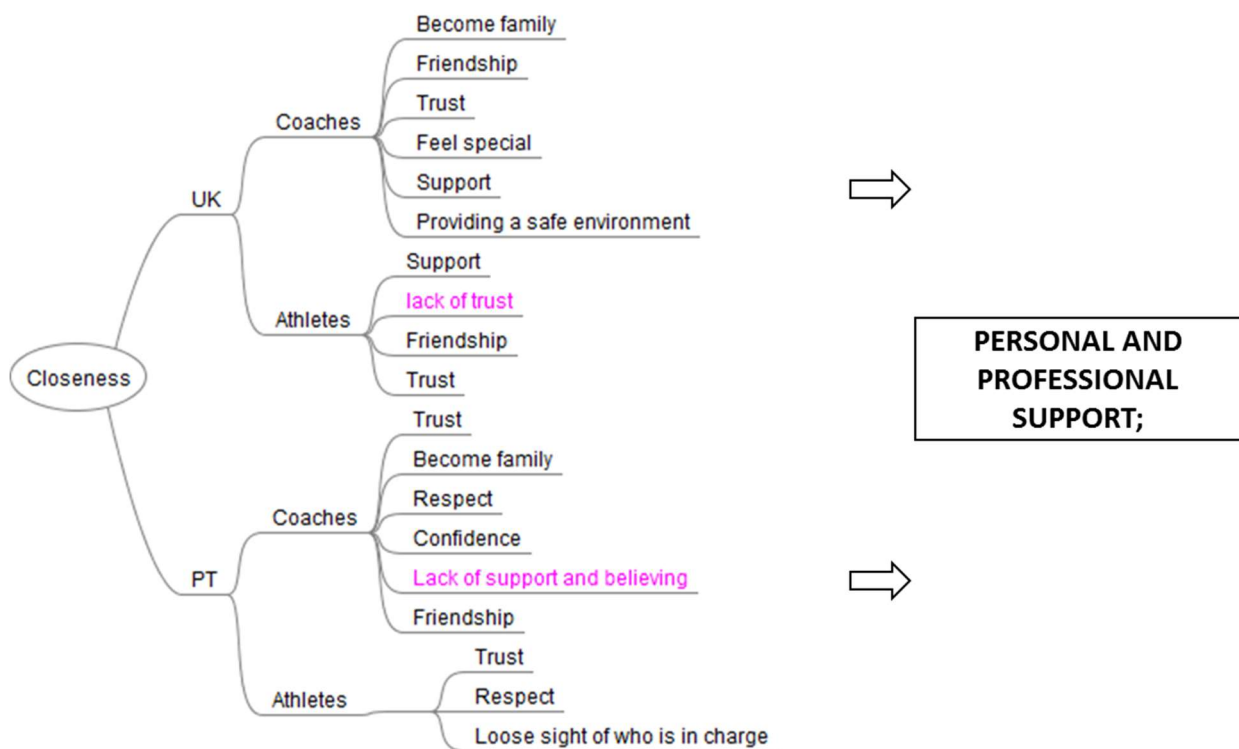


Figure 17 Coaches and Athletes perspectives about closeness

Emotional closeness as a salient aspect of the coach–athlete relationship appears to be consistent with evidence in the sport psychology literature Jowett and Meek (2000); Sarason, Sarason et al. (1990). Vernacchia (1995) has vividly stated that *“coaches become very attached to their athletes and commit great emotional investments of care*

and concern for the welfare of their athletes". The present data also indicate that athletes, too, develop feelings for their coaches. Thus, mutual feelings, both general and personal, are important to build a strong relationship.

Once more these eight dyads mentioned the element of trust and also the importance of receiving and giving support.

"But she trust me, I know for sure that she really trust me professionally" (Daniel, England coaches)

"at the moment I'm not just helping her in her trainings, I'm also trying to contact a few people to help her in her social and personal life, like getting her a job. if she finds a job with or without my help that permits her to train at normal and decent hours that would be a really big help..." (Daniel, England coaches)

It was really remarkable to see how strong some of these relationships were. It was so much more than just a sport relationship, at some point it became family. In some relationships the coach became, some sort of a parent as well, *"I felt... that was me being a parent, this has to be done, and he understood why this has to be done and he trusted in me to do that."* (Crystal, England coach)

During the interviews, the coaches elaborated on how their attention is on creating strong coach athlete relationships. After all, and according to all the results that these coaches accomplished, each English and Portuguese coach has already proven to the sporting world to have exceptional technical skills and sports specific knowledge about tactics and training methodology. What became a determining factor was how they spoke at length about the importance of communication, trust and support.

If a coach is to develop a strong coach athlete relationship, they are to develop a firm emotional contract with their athletes. An emotional contract is a bond developed by mutual trust and respect for each other. This type of bond it is based on expectations of values and beliefs held by both the coach and the athlete. If both, the coach and athlete feel complete trust in each other nothing can break that relationship. Trust in sport is the building block of a quality relationship. Without trust a coach is not likely to place a high level of responsibility with their athletes. Once trust is broken it can be impossible to repair or restore. Trust is never given, it is always earned. Trust is based on honesty, communication, friendliness, openness and confidence building. On the other hand,

closeness has also a negative element, when athletes become too close with their coaches, they can lose sight of who is in charge, and so closeness becomes an obstruction to build a positive relationship. So not everything is that easy, like in every relationship there is always a few obstacles.

2.3 Cohesion barriers

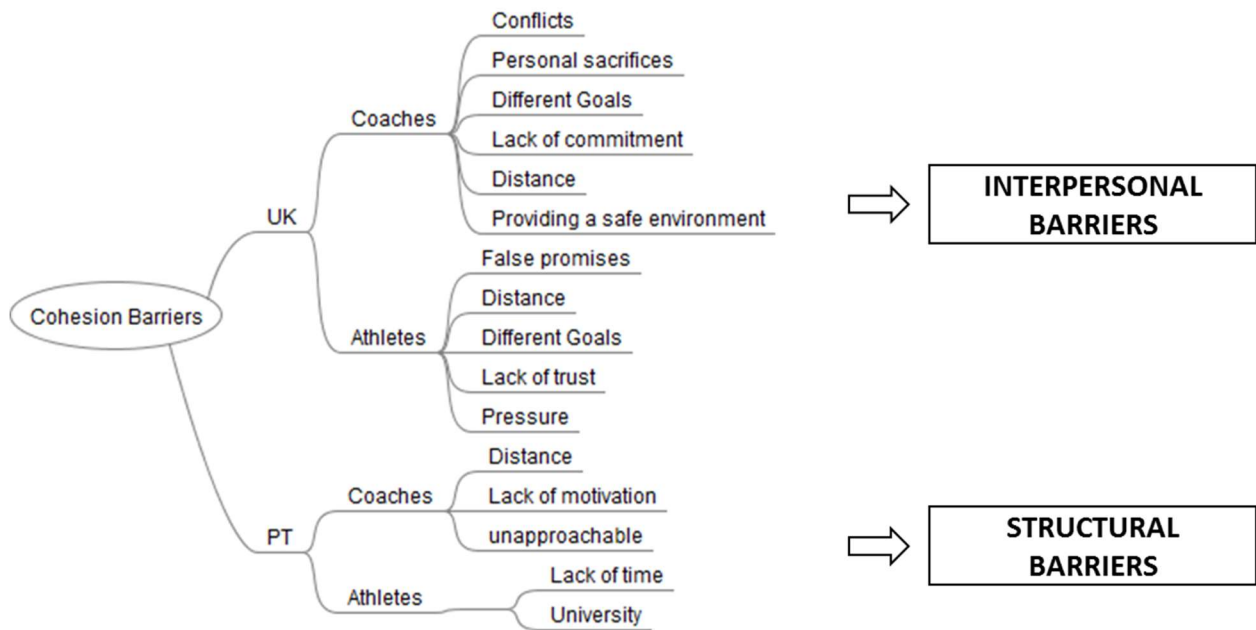


Figure 18 Coaches and Athletes perspectives about cohesion barriers

As the interviews went on, coaches and athletes talked about the cohesion barriers between them. Coaches state that causing a bad environment is unacceptable for them as that causes a lot of stress in the group and also an athlete having different goals it may be detrimental for the relationship. Understanding the reasons for failures and learning how to avoid them is crucial for a successful relationship.

"Well his goal is different to mine because his goal is totally about the performance, his goal particularly is about one thing completely, although he has lots of other goals, at the end of the day his one goal is this particular thing. I have lots of goals, do you know what I mean? I have lots of goals and, my goal isn't... oh god this is strange... my goal isn't what his goal is..." (Crystal, England coach)

Interpersonal conflicts can disrupt the coach-athlete relationship. Interpersonal conflict is disagreements between two individuals. Specifically, interpersonal conflicts arise when the coach and athlete are incompatible and have different goals, desires, or preferred styles.

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Setting goals is critical to reach success as athletes and coaches in both sports and life. After establish what those goals are it is important that both, coach and athlete stay committed to evaluating and changing them when needed.

During the interviews English dyads referred several aspects that they believed to be potential barriers in their relationships, things like, bad environment, different goals, lack of support due to distance issues (interpersonal barriers) (*"I have to travel 240 miles each way to see Derek twice a week..."*), (Tyler, England coach) pressure, different priorities, and the most important ones, making false promises (*"I know that some athletes leave their coaches because some coaches make false promises"*) (Derek, England athlete) and bad communication.

On the other hand, Portuguese dyads stated lack of motivation, lack of time, distance issues and different goals (Structural barriers).

"He constantly say at me that, he wants me to throw at the British greatest level, he wants me to throw for England some time, but I 'm fine to be in a county level which is where I am now..." (Jessica, England athlete)

In sum, the cohesion barriers for English dyads were more related to interpersonal barriers like lack of commitment and lack of trust. On the other hand for Portuguese dyads the structural barriers are more problematic, like distance, university, lack of time, etc.

Another relevant issue that was raised was that sometimes coaches don't know how to apply their power.

2.4 Power

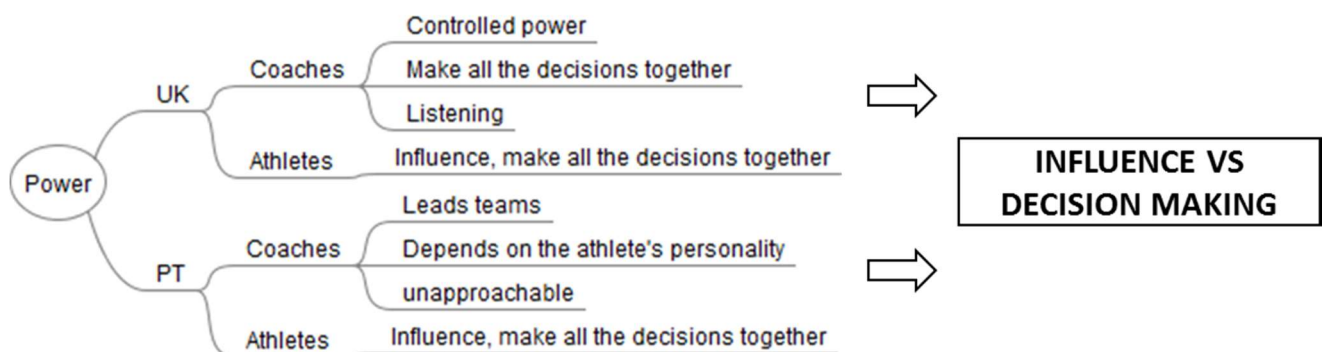


Figure 19 Coaches and Athletes perspectives about power

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The exercise of power by coaches takes place within the realms of institutional boundaries. So, it is important to understand coaches' perspectives about the way they apply their power on athletes.

In both countries coaches believed that the Power of influence is the way to lead athletes.

"... is got to be controlled power in as much as you want them to do as you ask if that's power, or it could be called suggestion" (Eric, England coach)

"I think that I can obtain more results if I try to influence them, showing them the way, therefore I have the power to influence them" (Luis, PT coach)

This statement match Fiedler (1973) findings, If the coach and the athlete have a high degree of trust and respect then it will be easier for the coach to exert influence. As a result the communication of ideas and strategy may become more effective. With the realization of efficiency the athlete may assume that adhering to the coach brings them closer to their desired goals. There are other coaches that don't think that the use of power it is needed. Coaches like Jason believe that personal power doesn't contribute for a better relationship.

Portuguese coaches, see power as a way to lead athletes. Coaches explained that the way they applied their power depends on the situation but that most of times they use the power of influence.

"My coach has a way of talking that convinces everyone to do what he wants, even when we don't feel like doing it" (Lara, England athlete)

For these particular coaches Power goes with any situation requiring expertise and involving the authority to make decisions. A coach's legitimate power is based on the experience, education, and knowledge brought to the job (Kinsman 1999). Regarding the athletes, they put trust in their coaches, which in turn allows power over themselves in the coach to bring out their best performance.

In sum, the majority of the coaches from both countries were using the power of influence with their athletes every time a decision had to be made.

2.5 Compatibility

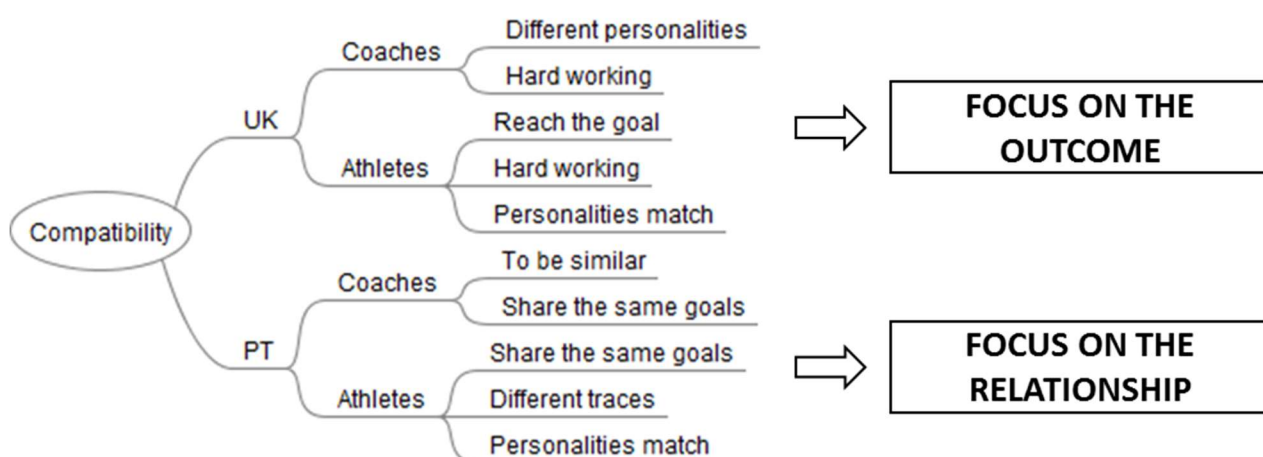


Figure 20 Coaches and athletes perspectives regarding compatibility

Compatibility between a coach and athlete is key to a successful relationship and is very important in individual sports. Compatibility can be disrupted when goals, values, beliefs, and desires differ. Compatibility tends to be easier to maintain in individual sports because the coach and athlete spend more time one-on-one and can progress the relationship.

Coaches were asked to reflect if the degree of which their athlete's goals, personality, and beliefs were consistent with their goals, personality, and beliefs.

England coaches were unanimous in saying that their personalities were completely different (*"Me and Derek are very different"*) (Tyler, England coach) from their athletes.

Athlete's perspectives about this subject diverge a little. Some England athletes, don't give any importance to the fact of being similar as long as they train hard and reach the goal. (*"I'm not really bother about the characters or the compatibility of a coach because, sometimes the way a coach is to people and the way he is to an athlete are two different things"*) (Derek, England athlete)

For these dyads, a clear understanding of each other's personalities makes two people compatible. Coaches and athletes demonstrated different views on this matter. England coaches stated that they have completely different personalities than their athletes but at the same time they also rated their relationship with the maximum score. On the contrary, the majority of England athletes stated that it is important to have similar personalities and the same goals. Portuguese coaches also shared the same opinion, that it is important to be similar to build a strong relationship. But, for Portuguese athletes their opinions diverge. A few thinks that, it is ok to have different personalities as long as they have the

same goals. And others believed that *"It is impossible to have a relationship if two people don't match ..."* (Lara, PT athlete)

Apart from having different personalities these coaches and athletes shared the same passion for Athletics, and it could be seen by their statements how committed they all were to their sport and to each other.

A coaching style is a way of behaving. So, coaches spend most of their time using their preferred coaching style. Sometimes this style works well for them. Sometimes it does not. Knowing what your coaching style is and being able to change it is critical in order to appeal to the different types of athletes that you coach (Gilbert and Trudel 2005). Using a style that is incompatible with your athlete's needs will result in you becoming frustrated that the athlete is not making changes and it will also result in the athlete becoming frustrated that they are not being coached effectively

In sum, as it can be seen by England and Portuguese coaches and athletes' statements, English dyads focus more on the outcomes and Portuguese dyads focus more on their relationship.

2.6 Commitment

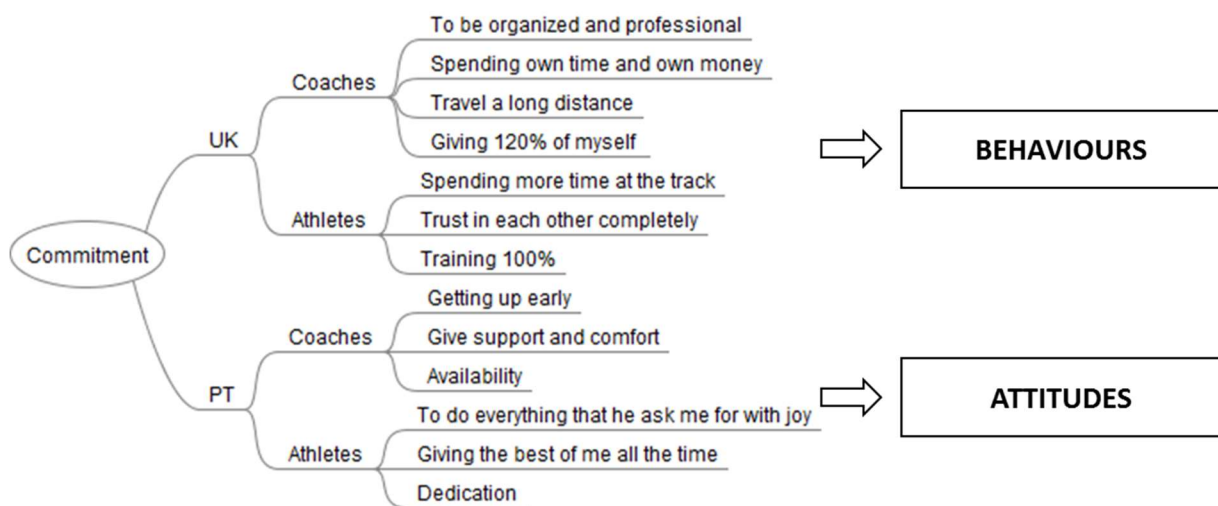


Figure 21 commitment perspectives according to coaches and athletes

As the interviews went on, coaches and athletes have spoken several times about the way they commit to each other, to their relationship and to their goals. For these dyads Commitment is the dedication that they need to have to reach their goals. England coaches expressed that they are 100% commit to the cause, that they do everything they

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can in order for their athlete to succeed, even if that means investing their own time and money.

"I'm doing it for free, spending my own time, my own money so" (Jason, England coach)

"if Derek wasn't committed, I would find it very difficult to travel twice a week, you know, 10 or 11 hours sat in a car and using my own money as well, you know, I don't get paid to travel that far, this gets out of my own pocket" (Tyler, England coach) (Behaviours)

For Portuguese coaches it is important to be always available for their athletes supporting them as much as they can, even though the majority are not full time coaches as they need to have another job (PE teachers).

"It means to be organized, to be professional in the preparation of the trainings, in the planning of the trainings, to be concerned in being present all the time for correcting whenever is needed, to give instructions and feedbacks..." (Artur, PT coach) (Attitudes)

Regarding on the athlete's points of view it was similar in both countries, they all think that, *"to be committed to my coach means to do everything that he ask me for with joy, giving the best of me all the time" (Cristina, PT athlete)*

For these dyads, commitment is what keeps you moving when you have a dip in your motivation. Commitment to a goal means that the challenges you face along the way won't cause you to change the direction off of your path, they are just temporary setbacks you have to deal with. Commitment to your coach or athlete means that even when your performance is low, you're still there to support him and to see them succeed. But commitment without motivation is a sure path to burnout.

2.7 Motivation

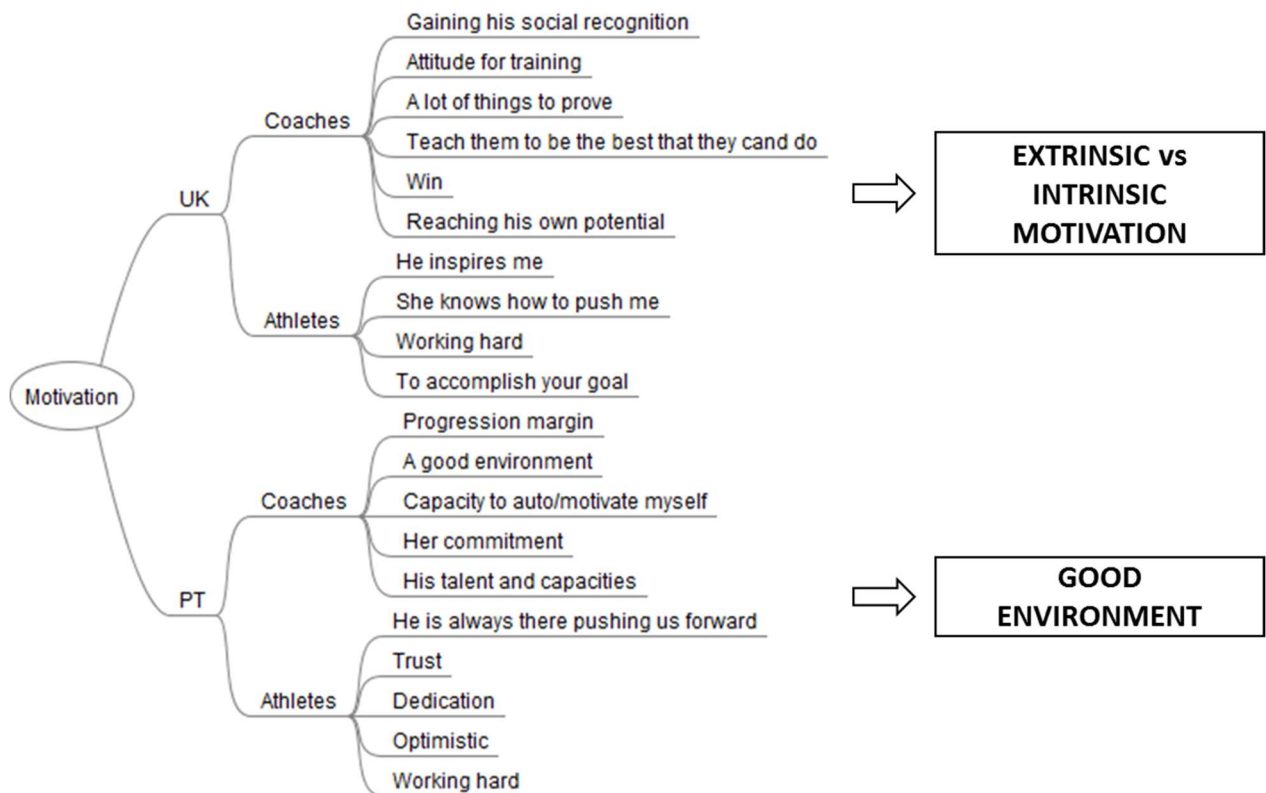


Figure 22 England and athletes dyads perspectives regarding motivation

Motivation represents one of the most important variables in sport. In fact coaches and athletes agree that motivation is one of the key elements that will facilitate not only performance but also a positive experience in the sport area.

Coaches and athletes were asked their opinion about if they thought that motivation could contribute for a stronger relationship, their thoughts are in Figure 22.

England and Portuguese coaches were unanimous in saying that motivation plays a giant part in a sports relationship.

There are many people out there who have the talent to succeed but very few who have the motivational drive to do what it takes to succeed. In light of this, it appears that intrinsic motivation may be the greater determinant of achieving success in sports. All England coaches said that they didn't need to motivate their athletes as they were self-motivated.

"I don't really have to do any kind of motivation with those guys, because they have all the self-motivation they can ever wish for." (Crystal, England coach)

This view is supported by several research studies (Hardy and Parfitt (1994), Mahoney, Gabriel et al. (1987); Orlick and Partington (1988)). To achieve an elite level in sport, an athlete must have the motivation to train hard on a daily basis and to overcome any obstacles or setbacks that athlete might face in reaching or maintaining that level of performance.

Motivation is such an incredibly fascinating and complex subject. There are so many factors involved in the coaches' and athlete's motivation. England coaches believe that motivation can be either intrinsic or extrinsic but what really matters is the athletes' attitude towards training, is their desire and drive to achieve their goals.

Regarding Portuguese coaches they've stated that a relationship without motivation cannot be consistent. What keeps them motivated is to see their athletes succeed, as well as their commitment and dedication to the cause.

Concerning England athletes what keeps them motivated is the unconditional support and encouragement of their coaches and the way they are pushed to the max in trainings.

"the way she fights for her goals, that keeps me happy and motivated to be by her side all this time". (Steve, England athlete)

For Portuguese athletes it is their love for athletics, their close relationship and their coaches' constant support and dedication that keeps their motivation high.

Subsequent it is important to understand coaches' and athletes' perceptions about their sport relationship.

2.8 Co-orientation

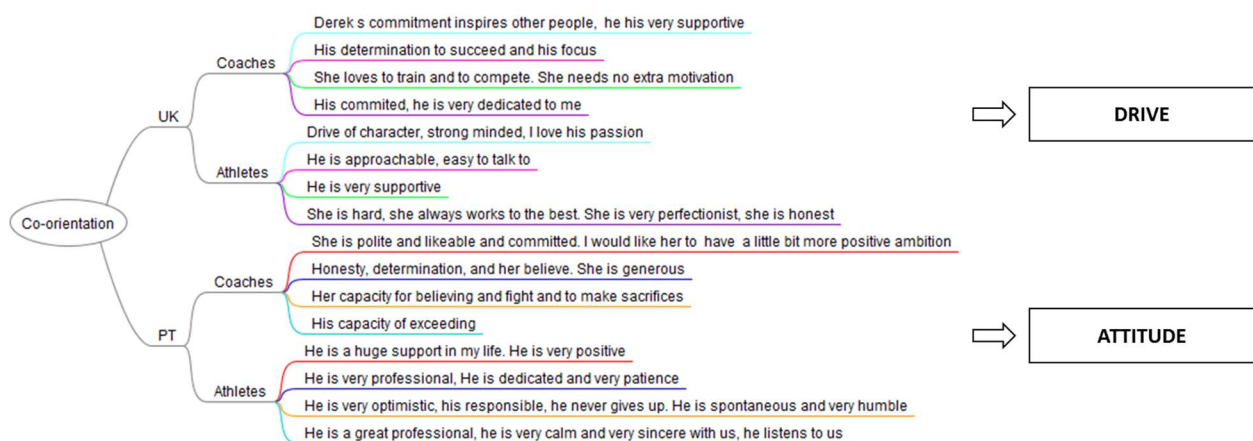


Figure 23 coaches and athletes' perceptions regarding each other

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Coaches and athletes are capable to perceive their relationship from two different perceptual perspectives, both of which can define the quality and, in turn, functions of the coach-athlete relationship.

During the interviews, coaches and athletes were questioned about their perceptions regarding each other. Athletes revealed as a very positive aspect, that their coaches were very good listeners and communicators.

“he is approachable, I can talk to him about anything and he listens” (Terry, England athlete)

These findings match the Jowett and Cockerill (2003). In their study the Majority of the participants referred to the important role that interpersonal communication had to play in the relationship with their coach, regardless of its content. And these results are also in line with findings of (Gould, Guinan et al. 1999). They have reported that effective communication between coaches and their athletes is a significant factor that contributes to the team's success.

How coaches and athletes think and feel about one another, and also how they think that the other perceives them is extremely important in this type of relationships.

Regarding England they were similarly responsive, friendly and ready to do their best in training. Every dyad, believed that their coach/athlete felt complete trust, respect, and appreciation for the work that is being developed.

“she's hard, she's not lay off, she always works to the best, she's very perfectionist, the way she trains me I just love it... she supports me all the way, she believes in me, she believes and I believe in us as a team”. (Steve, England athlete) (DRIVE)

“Derek has got that self believe, this constant drive and 100% commitment to achieve his goals”. (Tyler, England coach) (DRIVE)

“drive of character, strong minded” (Derek, England athlete) (DRIVE)

“his drive and his ambition” (Crystal, England coach) (DRIVE)

Concerning Portuguese dyads they've highlighted subjects like being professional, competent, responsible, etc

“Extremely professional as a person” (Cristina, PT athlete) (ATTITUDE)

“he is competent and responsible” (Lara, PT athlete) (ATTITUDE)

“His capacity of exceeding, his personality” (Paulo, PT coach) (ATTITUDE)

There is also a negative side of things, one particular Portuguese coach had a different perspective from their athletes. This particular coach, feels a complete lack of support and egoism from his athletes, and also he believes that sometimes they forget about him, *“Not always I feel that support, I think that my athletes forget sometimes to show it” (Luis, PT coach)*

Quite often we think that coach and athlete share similar beliefs and values, but this is not necessarily true.

2.9 Complementarity

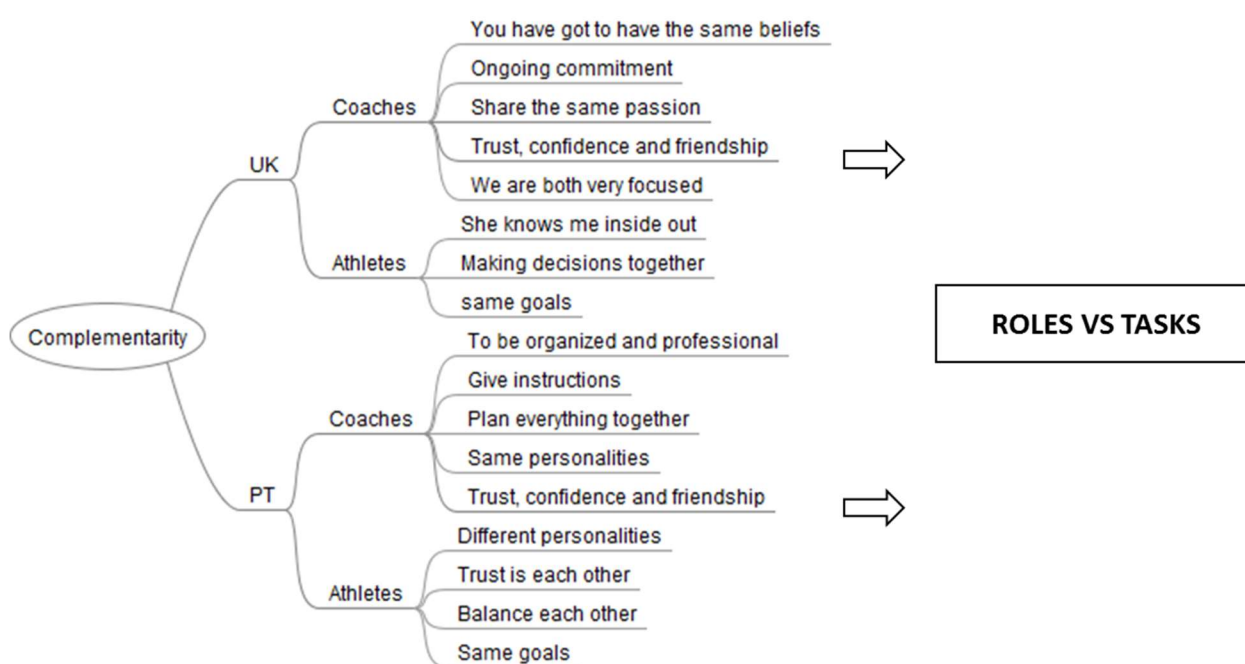


Figure 24 Coaches and athletes perspectives regarding complementarity

Coaches and athletes were asked to reflect how well their personalities and characteristics match to create a positive environment for Athletics. Athletes and coaches think that decisions should be made together.

“we talk a lot, face to face and over the phone. He wants to know my opinion all the time, how I feel at the end of every training session and if I'm happy or not”. (Derek, England athlete)

Athletes should be encouraged by their coaches, to make a decision by evaluating options and being allowed to make mistakes and purposely inspect these mistakes so that it does not occur in the future. For this atmosphere to be reached by athlete, the coach must provide the change and environment. And the biggest impact on whether athletes end up taking responsibility is how the athlete is coached. Coaches try to incorporate a sharing style of coaching where they use questioning techniques to draw out their athlete's thinking. To use questioning technique means not relying on a "traditional" style of coaching which is usually based around the directive style of coaching (Dunn 2006). However, it is not suggested a coach never use a directive style of coaching. However, if coaches mainly rely on this style and give their athletes the answers to most of the problems they face, then the athlete never learns to address issues themselves. They need to learn and practice decision making. If an athlete does not get the opportunity to learn and practice decision making in training, they do not get it right in a competition. Overall, coaches who use an athlete-centered approach have a better chance of developing athletes who have self-awareness and who have the abilities to make great choices in both training and then competition (Voight 2002). Decision making is more natural to certain athletes, so they focus more on improving the quality of their decisions. Other athletes who are less natural decision makers are often able to make quality assessments, but then need to be more influential in acting upon the assessments made.

Shared beliefs are often considered an important aspect of any relationship, but in this particular case, the opinions are somewhat controversy.

England and Portuguese coaches had different opinions regarding the share of beliefs, and long-time planning. Some coaches think that it is important to believe in the same things, ("*you've got to have the same beliefs*") (Tyler, *England coach*) these findings are supported by Jowett and Cockerill (2003) that, coaches and athletes who are co-oriented (i.e. have shared knowledge and understanding) are more likely to communicate effectively and appropriately. Others don't think it is important. Some coaches like to plan in advance the entire season like Portuguese coaches, and just make a few adjustments here and there, but others just plan for maximum of three or four weeks and talk to their athletes about it before or during trainings. Portuguese coaches quite often do meetings with their athletes to plan with their athletes what to do next. Regarding the essence of a successful relationship they all agreed that is the ongoing commitment, trust, passion, cohesion and probably the most important one, to know when to let go.

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England and Portuguese athletes' opinions about the share of beliefs also diverge a little. Regarding the essence of a successful relationship they all said good communication, and complete trust. Regarding the formal meetings for planning the season, they think it is important because that bonds them more.

Chapter Six

The purpose of this chapter is to report the findings of the analyses for stages 3 & 4. The aim of stage 3 is to develop a psychometric tool and to survey a larger group of coaches and athletes to undertake a cross cultural comparison (Stage 4).

Description of the Respondents

A total of 102 completed questionnaires were obtained from England and Portugal and the respondents consisted of a total of 54 coaches and athletes from England responded to the survey, of which 32 were female and 22 male. Regarding Portugal, the sample was made of 48 coaches and athletes of which 27 were female and 21 male. Figure 25 provides an overview of the distribution of the respondents in terms of Gender and Country.

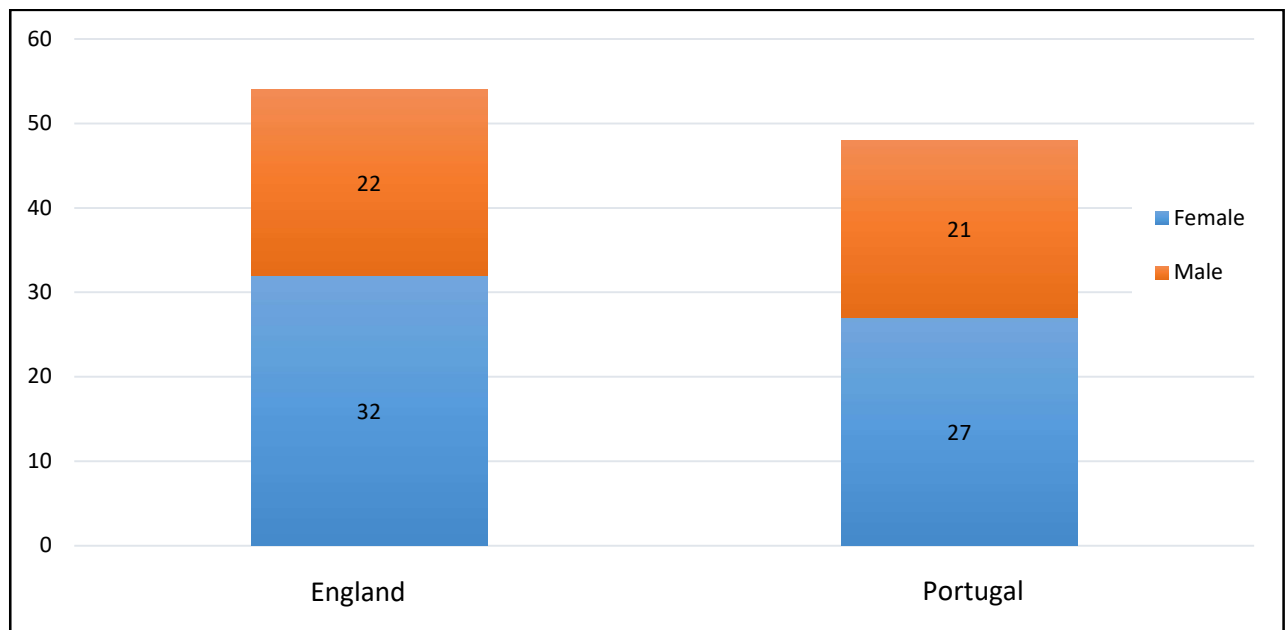


Figure 25 Gender and Country Distribution Chart

Concerning the variable age group, we have information from a total of 102 respondents, the age range varied from 16 to 62 years. In more detail with ≤ 25 there is 27 coaches/athletes in Portugal and 31 coaches/athletes in England. In the category from 26-35 years old, there is 13 coaches/athletes in Portugal and 17 coaches/athletes in England. Concerning the age group from 36-45 there is 5 coaches/athletes in Portugal and 3 in England. Following the age group from 46-55, there is 2 coaches/athletes in Portugal and equally in England. The last age group, ≥ 56 is also the same in both countries with only 1 respondent in each country (see Figure 26).

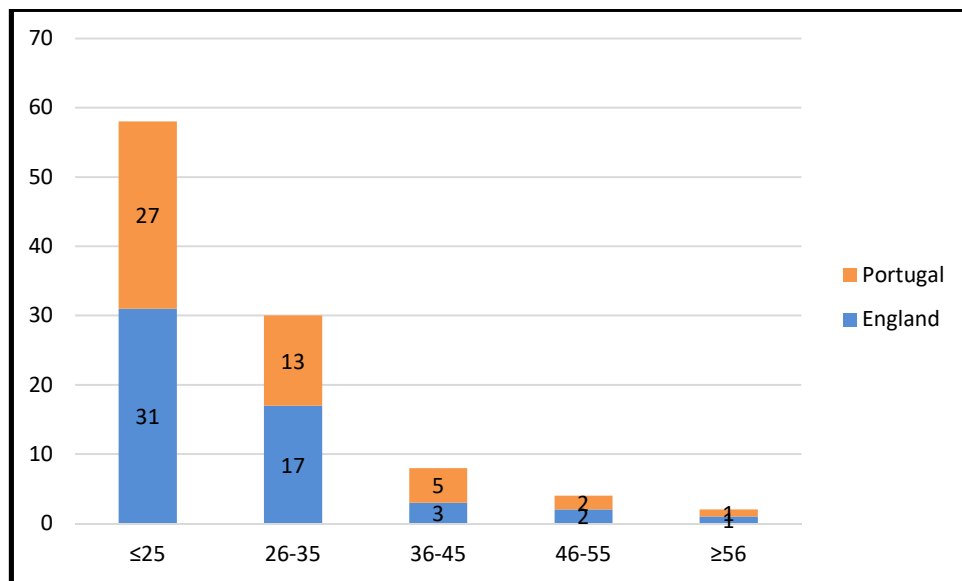


Figure 26 Age and Country Distribution Chart

Research Objective 1: Psychometric analysis of the Coach-Athlete Relationship Inventory (CARI)

Steps involved to examine the factors

First step was to assess the suitability of the data for factor analysis. There were two main issues that were considered to determine if the data was suitable for factor analysis, the distribution of the respondents and the strength of the relationship among the items.

Distribution:

- Assessing distribution

Each of the 64 items in the CARI were examined for violations of kurtosis and skewness. The descriptive statistics output presented in Appendix H provides information concerning the distribution of scores on continuous variables (skewness and kurtosis). This allows a simple rule of thumb to be applied, skewness can't be less than -1 or greater than 1 (Baumeiste and Leary 1995), and kurtosis can't be less than -3 or greater than 3 (Berscheid, Snyder et al. 1989). Each of the 64 items in the CARI were examined for violations of kurtosis and skewness. The negative skewness values of this sample indicate a clustering of scores at the high end, and also the negative kurtosis values indicate a distribution that is relatively flat. However, none of the items violated these assumptions.

- Internal consistency, reliability analysis

The suitability of each of the eight scales was examined by inspecting the internal consistency using Cronbach Alpha.

The analysis involved several procedures. Firstly, the item-total-correlations were calculated. This involved correlating each item in turn to the remaining items on the scale. Secondly, the inter-item-correlations were examined. If the correlation scores were too high then it was likely that the items were too similar and may be merely measuring the same concept. If the correlation scores were too low then it was possible that the items were not measuring the same construct. Ideally, the Cronbach alpha coefficient of a scale should be above .7 (DeVellis 2003). Six items across the eight scale failed to meet this criteria and were removed from the future analysis. The reliability of the overall inventory was good (0.985), and no single scale was less than 0.760.

Table 11 internal consistency for the 57 items

Scales	Number of items	Cronbach alpha
Cohesion	7 items (1 item deleted)	.760
Closeness	8 items (0 item deleted)	.955
Power	6 items (2 items deleted)	.911
Complementarity	8 items (0 item deleted)	.955
Commitment	6 items (2 item deleted)	.921
Compatibility	8 items (0 item deleted)	.895
Co-Orientatation	8 items (0 item deleted)	.956
Motivation	7 items (1 item deleted)	.905

Assessing Correlations between items

The second issue to be addressed, the strength of the relationship among the items, Tabachnick and Fidell (2007) recommend an inspection of the correlation matrix for evidence of coefficients greater than .3. Accordingly, the 57 items have shown moderate correlations between the items (See Appendix I).

There is two more statistical measures to help to assess the factorability of the data:

Chapter Six

- Bartlett's test of sphericity (Bartlett 1954) – Should be significant ($p < .05$) for the factor analysis to be considered appropriate.
- Keiser-Meyer-Olkin (KMO) – Index ranges from 0 to 1, with .6 suggested as the minimum value for a good factor analysis (Tabachnick and Fidell 2007).

Table 12 KMO and Bartlett's Test for each of the 8 scales

Variables	KMO	Bartlett's Test Approx. Chi-Square	Df	Sig
Cohesion	.707	198.067	21	.000
Closeness	.925	707.230	28	.000
Power	.887	320.206	15	.000
Complementarity	.939	670.756	28	.000
Commitment	.846	402.549	15	.000
Compatibility	.888	396.452	28	.000
Co-orientation	.915	753.409	28	.000
Motivation	.878	401.963	21	.000

As it can be seen all the values exceeded the recommended value of .6 (Kaiser 1970) and Bartlett's Test of Sphericity (Bartlett 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Factor analysis for each of the eight scales in the inventory confirmed that all of the remaining items were suitable (see Appendix J).

These 57 items were converted into 8 variables by averaging the responses.

Table 13 Scale items distributed into 8 factors

COHESION	Cultural differences are a barrier in my relationship with my coach/athlete We work as a team Distance is a barrier in my relationship with my coach/athlete I have different goals than my coach/athlete My coach/athlete puts a lot of pressure on me
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	<p>My coach/athlete makes me false promises</p> <p>My time for trainings is limited</p> <p>My relationship with my coach/athlete is more important than achieving the goal</p>
CLOSENESS	<p>I trust my coach/athlete</p> <p>I am close to my coach/athlete</p> <p>I have difficulties in expressing my feelings with my coach/athlete</p> <p>I like my coach/athlete</p> <p>I consider my coach/athlete as family</p> <p>My coach/athlete makes me feel special</p> <p>My coach/athlete gives me personal support</p> <p>My coach provides a safe environment for his athletes/I provide a safe environment for my athlete</p>
POWER	<p>I discuss everything beforehand with my coach/athlete</p> <p>My coach made me sign a contract/My athlete had to sign a contract</p> <p>My coach/athlete listens to what I have to say</p> <p>My coach/athlete influences my decisions</p> <p>My coach/athlete lets me set my/his goals</p> <p>My coach punishes his athletes/I punish my Athletes</p> <p>I see my coach/athlete as a leader</p> <p>I recognize my coach's authority/athletes recognize my authority</p>
COMPLEMENTARITY	<p>When I am coached by my coach/coaching my athlete I always work to the max</p> <p>When I am coached by my coach/coaching my athlete I am at ease</p> <p>When I am coached by my coach/coaching my athlete I am ready to do my best</p> <p>We talk about our sport future</p> <p>When I am coached by my coach/coaching my athlete I am responsive for his/her efforts</p> <p>My coach/athlete and I are always very focused</p> <p>We share the same passion regarding sports</p> <p>My coach plans everything in advance/I plan everything in advance</p>
COMMITMENT	<p>I am committed to my coach/athlete</p> <p>I think my sport career is promising with my coach/athlete</p> <p>My coach/athlete is always available for me</p> <p>I am 100% committed to my coach/athlete</p> <p>I do personal sacrifices to achieve my goal</p> <p>I always do my best in every session</p> <p>I am capable of doing anything to achieve my goals</p> <p>My coach/athlete refuses any kind of commitment</p>
COMPATIBILITY	<p>My coach/athlete it is not easy to talk to</p>

	<p>My coach/athlete and I, we have distinct personalities</p> <p>There are specific things about my personality and my coach's/athlete's personality that create the perfect relationship</p> <p>I share the same beliefs as my coach/athlete</p> <p>My coach/athlete takes into account my needs</p> <p>I believe it is important to have a personality match between the coach and the athlete</p> <p>My coach/athlete interacts with me all the time</p> <p>My coach/athlete gives me a lot of feedback during training</p>
CO-ORIENTATION	<p>My communication with my coach/athlete is excellent</p> <p>I love my coaches'/athlete' excitement towards training</p> <p>I understand my coach/athlete</p> <p>My coach/athlete understands me</p> <p>I know my coach'/athlete' strong points</p> <p>I know my coach'/athlete' weak points</p> <p>I agree with my coach's/athlete's views</p> <p>I strive to achieve similar goals with my coach/athlete</p>
MOTIVATION	<p>We motivate each other all the time</p> <p>My coach/athlete inspires me</p> <p>We both want to succeed</p> <p>I want to gain social recognition</p> <p>I am self-motivated</p> <p>My coach/athlete keeps my motivation high</p> <p>I have more to prove to others than my coach/athlete</p> <p>My motivation comes from my results</p>

1. Cohesion

Cohesion is multidimensional, resulting from many factors that may differ among even apparently similar groups. Cohesion is dynamic, it can change over time.

2. Closeness

Closeness refers to feelings and perceptions that appear to be a function of interpersonal factors such as liking, trust, and respect.

3. Power

Power reflects the ability to influence others to further interests and/or to resist the activities of others (Atlee and Atlee 1992).

4. Complementarity

Complementarity, reflects a positive working environment where coach and athlete work together to attempt to improve performance.

5. Commitment

Commitment is defined as the psychological construct reflecting the desire and resolve to persist in an attempt over time.

6. Compatibility

Compatibility exists if the behaviour expressed by one person is congruent with what the other person wants to receive.

7. Co-orientation

Co-orientation is defined as misperceptions about the opinions and behaviours of others. Therefore, refers to similar views and opinions, or the common ground that coaches and athletes establish in the course of their athletic partnership.

8. Motivation

Motivation represents one of the most important variables in sport. In fact, coaches and athletes agree that motivation is one of the key elements that will facilitate not only performance but also a positive experience in the sport area.

The final step was to create an overarching score for each Scale.

Table 14 Descriptive statistics of the 8 scales

Statistics								
	Cohesi on	Commitm ent	Complement arity	Motivati on	Closene ss	Compatibi lity	Co- orientati on	Pow er
Mean	3.033	3.109	3.114	3.119	3.158	3.043	3.086	3.078
Std. Deviati on	0.959	1.186	1.301	1.144	1.287	1.023	1.209	1.221

In the Table 14 presented above, it can be seen the mean and standard deviation for each of the eight scales.

Research Objective 2: Cross Cultural Comparison of the Survey Data

This section presents the results of the pilot/application and cross cultural comparison of the survey data. This stage presents the results of the statistical analyses used to determine the extent the eight categories of the new model of the coach athlete relationship were influenced by age, gender and country. A MANOVA was used for the examination of subgroups and Pearson Correlation for the relationships between the scales. As MANOVA is affected by normality and high correlations, normality was assessed.

- **Assessing normality**

In this study scores for the eight scales of variables appear to be reasonably normally distributed. This is supported by an inspection of the normal probability plots (see Appendix K Normal Q-Q Plot). A reasonably straight line suggests a normal distribution.

Although in this study all the variables were highly correlated, it was important to conduct a MANOVA because it would provide a more rigorous analysis than doing a multiple single ANOVA (Taylor 2014).

Questions

Is there any differences between the eight group of dependent variables and gender?

A one-way between-groups multivariate analyses of variance was performed to investigate if there was any differences between the eight dependent variables and gender. Eight dependent variables were used: Cohesion, Commitment, Complementarity, Motivation, Closeness, Compatibility, Co-orientation and Power. The independent variable was gender. There was no statistically significant difference between males and females on the combined dependent variables, $F(8, 69)=0.710$, $p=0.682$; Wilks' Lambda=0.92 (See Appendix L).

Table 15 MANOVA between the 8 scales and gender

Variables	F	P
Cohesion	F(1, 76)=2.393	.126
Commitment	F(1, 76)=.654	.421
Complementarity	F(1, 76)=.1.029	.314
Motivation	F(1, 76)=.133	.716
Closeness	F(1, 76)=.853	.359
Compatibility	F(1, 76)=.416	.521
Co-orientation	F(1, 76)=.543	.463
Power	F(1, 76)=1.186	.280

Is there any differences between the eight group of dependent variables and age group?

A one-way between-groups multivariate analyses of variance was performed to investigate if there was any differences between the eight dependent variables and age. Eight dependent variables were used: Cohesion, Commitment, Complementarity, Motivation, Closeness, Compatibility, Co-orientation and Power. The independent variable was age group. There was no statistically significant difference between age groups on the combined dependent variables, $F(32, 244.991)=1.129$, $p=0.297$; Wilks' Lambda=0.602 (See Appendix M).

Table 16 MANOVA between the 8 scales and age group

Variables	F	P
Cohesion	F(4, 73)=1.001	.413
Commitment	F(4, 73)=.946	.443
Complementarity	F(4, 73)=1.049	.388
Motivation	F(4, 73)=1.555	.196
Closeness	F(4, 73)=1.677	.164
Compatibility	F(4, 73)=1.229	.306
Co-orientation	F(4, 73)=1.469	.221

Power	F(4, 73)=.872	.485
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Is there any differences between the eight group of dependent variables and Country?

A one-way between-groups multivariate analyses of variance was performed to investigate if there was any differences between the eight dependent variables and gender. Eight dependent variables were used: Cohesion, Commitment, Complementarity, Motivation, Closeness, Compatibility, Co-orientation and Power. The independent variable was country. There was statistically significant differences between Portugal and England on the combined dependent variables, $F(8, 69)=60.47$, $p=0.000$; Wilks' Lambda=0.125. When the results for the dependent variables were considered separately, there was statistical significant differences in all the eight variables (See Appendix N).

Table 17 MANOVA between the 8 scales and country

Variables	F	P
Cohesion	F(1, 76)=132	.000
Commitment	F(1, 82)=227	.000
Complementarity	F(1, 82)=395	.000
Motivation	F(1, 82)=230.7	.000
Closeness	F(1, 82)=307.7	.000
Compatibility	F(1, 82)=213	.000
Co-orientation	F(1, 82)=340	.000
Power	F(1, 82)=352	.000

Is there a Relationship between the eight inventory variables?

The relationship between the eight inventory variables was investigated using Pearson product-moment correlation coefficient. There was a strong correlation between all the variables as we can see in Table 18.

Table 18 Pearson Product-Moment Correlations between 8 scale variables

	Scale	1	2	3	4	5	6	7	8
1	Cohesion	-	.788**	.812**	.717**	.822**	.789**	.806**	.792**
2	Commitment	.788**	-	.956**	.925**	.948**	.917**	.955**	.912**
3	Complementarity	.812**	.956**	-	.940**	.948**	.923**	.958**	.933**
4	Motivation	.717**	.925**	.940**	-	.920**	.902**	.931**	.900**
5	Closeness	.822**	.948**	.948**	.920**	-	.942**	.955**	.927**
6	Compatibility	.789**	.917**	.923**	.902**	.942**	-	.926**	.907**
7	Co-orientation	.806**	.955**	.958**	.931**	.955**	.926**	-	.927**
8	Power	.792**	.912**	.933**	.900**	.927**	.907**	.926**	-

** p<.001 (2-tailed)

However, since the MANOVA suggested strong differences between different countries, it may be possible that the relationships between the inventory items differ in each of the countries, therefore the relationships were examined separately for each country.

Is there a Relationship between the eight scale variables in England?

The relationship between the eight scale variables in England was investigated using Pearson product-moment correlation coefficient. The correlation between all the variables in England varied from moderate to strong, as we can see in Table 19.

Table 19 Pearson Product-Moment Correlations between 8 scale variables and England

	Scale	1	2	3	4	5	6	7	8
1	Cohesion	-	.476**	.543**	.395**	.549**	.576**	.435**	.406**
2	Commitment	.476**	-	.761**	.645**	.653**	.667**	.760**	.602**
3	Complementarity	.543**	.761**	-	.734**	.574**	.694**	.785**	.589**
4	Motivation	.395**	.645**	.734**	-	.600**	.622**	.610**	.550**
5	Closeness	.549**	.653**	.574**	.600**	-	.742**	.670**	.509**
6	Compatibility	.576**	.667**	.694**	.622**	.742**	-	.753**	.520**

7	Co-orientation	.435**	.760**	.785**	.610**	.670**	.753**	-	.541**
8	Power	.406**	.602**	.589**	.550**	.509**	.520**	.541**	-

** p<.001 (2-tailed)

Is there a Relationship between the eight scale variables in Portugal?

The relationship between the eight scale variables in Portugal was investigated using Pearson product-moment correlation coefficient. There was a moderate to strong correlation between four of the variables – Commitment, Complementarity, Closeness and Co-orientation. Cohesion was not related to any of the others, and the remaining three – Motivation, Compatibility and Power, showed a moderate correlation, as we can see in Table 20.

Table 20 Pearson Product-Moment Correlations between 8 scale variables in Portugal

	Scale	1	2	3	4	5	6	7	8
1	Cohesion	-	.208	.310	-.019	.233	.149	.299	.138
2	Commitment	.208	-	.839**	.720**	.869**	.635**	.819**	.608**
3	Complementarity	.310	.839**	-	.696**	.873**	.613**	.765**	.574**
4	Motivation	-.019	.720**	.696**	-	.729**	.586**	.726**	.448**
5	Closeness	.233	.869**	.873**	.729**	-	.687**	.818**	.743**
6	Compatibility	.149	.635**	.613**	.586**	.687**	-	.553**	.545**
7	Co-orientation	.299	.819**	.765**	.726**	.818**	.553**	-	.568**
8	Power	.138	.608**	.574**	.448**	.743**	.645**	.568**	-

** p<.001 (2-tailed)

Chapter Summary

Superficially, it is easy to assume that sport is identical around the world. The rules, the field, the objectives, the skills required for success, all seem to cross national and cultural boundaries. When moving beyond the superficial, however, differences emerge. Athletics revealed to be no different, it becomes clear that psychological meanings for sport change with context. People feel different emotions according to the situation, they define success differently, they bring different expectations, and they are motivated differently. So, the aim of this Chapter was to undertake a cross cultural comparison between England and Portuguese athletics dyads. Several tests (MANOVA and correlations between the eight scales) were performed aiming to answer our research questions.

Chapter Six

From this chapter we can highlight three key points:

- Gender and age are not related
- There are differences between the two Countries
- The nature of the relationship varies between Countries

Chapter Seven

Discussion

This chapter consists of a discussion of the issues arising from the study.

Recommendations are suggested at the end of this section. This chapter has been divided into the following sub-sections:

- Exploring coaches and athletes' perceptions of their relationship
- Coach-Athlete relationship model (CAR)
- Inventory development (CARI)
- Research Methods limitations
- Contribution to research

Exploring coaches and athletes' perceptions of their relationship

Two research approaches were used, interviews and a survey to explore coaches and athletes' perceptions of their relationship.

The interview sample consisted of 16 coaches and athletes' dyads. They were evenly split across both countries, England and Portugal, hence having 8 dyads per country. During the literature review it could be seen that, less attention has been directed toward studying two-way interaction between the coach and individual athletes. Therefore, coaches and athletes' perceptions of their own relationship, were given the same importance, in this study.

Firstly, looking at one of the primary aims, what makes up the coach-athlete relationship, it could be seen from the findings that, mutual trust, respect, support, cooperation, communication, and understanding are considered amongst the most important relationship components that contribute to performance success and satisfaction in both countries. In contrast, lack of trust, lack of time, poor salaries and distance issues, are considered to be components that weaken coaches and athletes' wellbeing. Both performance enhancement as well as psychological well-being lie at the heart of the coach-athlete relationship. These findings are similar to previous research (Staff, Didymus et al. 2017), where friendship and trust was defined as "the mutual connection and integrity of the relationship, which forms the building blocks of a shared coping experience between two individuals in a close personal relationship. If there was no trust in what we were trying

to say or do, that openness, the way we share stress then our sport relationship would be nothing”.

According to these findings it can be seen that coaches of both countries have different points a view regarding their job. Although England coaches loved their sport, they also see athletics as a “job”, for them, athletics is an instrument that contributes for a better life and it is also a way of developing an athlete holistically. The perspectives of these coaches are similar to previous research findings, Clarke, Smith et al. (1994) and Miller and Kerr (2002) emphasize the athlete's overall development, health and physical, psychological and social well-being. Portuguese coaches on the other hand, have emphasized that athletics it is part of their identity, they don't coach because of the money they earn, as salaries are very low, but because they like to be part of a group and positive environment. For Portuguese coaches, being a coach takes heart and it is more than a business, it is a passion. These coaches know that their passion is a high test fuel that will power their athletes over obstacles, beyond setbacks and through frustration until both achieve success. Their passion is infectious, motivational and inspiring, and yet the England approach appears to be more successful.

Furthermore, for all these eight coaches, positive relationships create an environment where athletes feel that they are being taken care of. Similarly, Poczwadowski, Barott et al. (2002) found that the athlete-coach relationship was underline by respect, belief in, knowledge of, and contribution to the other's goals, needs and wants. Specifically, the element of care on the part of the coach was found to be essential in the relationship (Poczwadowski, Barott et al. 2002).

Another interesting aspect was when these dyads were questioned about their perceptions regarding a positive relationship. Coaches mentioned that one important aspect of a positive relationship is to be friendly. On the other hand athletes stated that an important aspect of the relationship is friendship. Being friendly is very different than being friends, so it can be seen two different perspectives of the same relationship. Varying degrees of friendship may exist between coaches and athletes. Some coaches and athletes share personal aspects of their lives with one another or spend time together outside the sporting context, perhaps by going out for meals together. Other coaches and athletes have a more distant relationship and are simply “friendly” with one other and limit their contact to practice and competition settings. Coaches and athletes in all types of

friendships will experience the bonds of a shared passion—a passion for the sport that has brought them together. In this highly charged environment, it is easier to lose sight of what it means to be friendly or friends. But it is likely as well that friendships may develop. However, it is possible that such relationships between coaches and athletes could be too close sometimes and athletes lose sight of who is in charge. So to prevent those situations, it is important for both, coaches and athletes to determine just how close is too close.

The Coach-Athlete Relationship model (CAR)

This thesis focused on understanding the coach-athlete relationship (CAR) according to eight constructs – Cohesion, Closeness, Complementarity, Co-orientation, Power, Motivation, Commitment and Compatibility. These constructs were chosen after the literature review was completed. What makes this model so useful for coaches and athletes is that it takes into consideration not only these eight constructs but also the identity of the participants (environmental, personal and leadership factors), and their outcomes. Which helped me as a researcher to know them better, and to be able to gather more information about them. So coaches and athletes can use this model perhaps before the season starts to get to know each other better, their background, their goals and to find the best way based on that, to build a stronger relationship throughout the season.

Regarding the first construct, Closeness, these eight dyads spoke at length about the importance of communication, trust and support. According to these findings, coaches take the time to get to know the athlete as a person. They take an interest in the athlete's life off the track. You can't ever separate the athlete as a performer from who he/she is as a person. All of the eight coaches mentioned that they were supporting their athletes not only on the track but also with their personal life, and as a consequence, athletes become part of the family. These coaches were supporting their athletes in developing their full potential, not only as an athlete, but also as a person. This personal support involved things like, help to find a job, help to adapt to a different culture, to give advice, etc.

These findings match with a study by Jowett and Cockerill (2003). They explained that the closer the athletes and coaches feel, the more the opportunities occur for the coach to provide support, to spend time and effort and to respond to athletes' needs and wishes.

Secondly, regarding the Cohesion barriers construct, there were different perspectives in both countries. For instance English dyads mentioned more interpersonal barriers like lack

of commitment and lack of trust. This last element, lack of trust, was given more importance by the athletes. They have stated that England coaches were making their athletes to sign contracts as they were afraid of losing them. And on the athletes' perspectives this was a complete sign of lack of trust. This could mean once more that England coaches do this because they don't want to lose very good athletes, as this could mean losing money as well. Therefore, this action could put the relationship at risk. On the other hand for Portuguese dyads the structural barriers were more problematic, like distance, university, lack of time, etc. In Portugal is very common for everyone to get into university. Universities are very demanding, and because only a few athletes can make a living through athletics, athletes start to focus more on their studies, leaving athletics for second place. So from a coaches' point of view when the time comes it is hard to manage this type of situation, because athletes are under a lot of pressure, as a student and athlete.

Concerning the construct of Power, the eight coaches were unanimous in saying that they use the power of influence to convince their athletes to do what they think it is best and that is the way they lead their athletes. Athletes were very conscious that this type of power was exerted by their coaches, and they were very happy with it, as they also thought that this was the best way to be lead.

About the Compatibility construct, England coaches stated that they have completely different personalities than their athletes but at the same time they also rated their relationship with the maximum score. So this means that for England coaches, compatibility is not pre-requisite to have a strong relationship. So these findings show that coaches believe that in terms of personalities match, they don't need to be compatible in order to be successful in their sport. This theme was somehow controversial, as coaches and athletes' opinions diverged a little. In sum, English dyads focused more on the outcomes (results), this means that as long as they reach their goals the relationship becomes less important and on the other hand Portuguese dyads focused more on their relationship. Thus, this is possibly one of the reasons why English dyads are more successful than Portuguese dyads.

About the commitment construct, for these eight dyads, commitment is what keeps you moving when you have a dip in your motivation. Although, for England and Portuguese coaches, commitment, means different things. For England coaches being committed has

to be with their behaviours, their actions, like for instance to travel a long distance to deliver a session, spending their own time and money. As sometimes they don't get paid for the distance they have to travel. On the other hand for Portuguese coaches, to be committed means to be available when the athletes need them and to support their athletes all the way. Regarding the athletes' point a view it does not differ in both countries. They both think that to be committed is to give 100% in every session.

Regarding Motivation England and Portuguese coaches were unanimous in saying that motivation plays a giant part in a sports relationship. But having said that, these findings revealed that, a coach/athlete at this level has already an enormous capacity of self-motivation. So therefore the coach's task is to maintain that motivation and to generate excitement and enthusiasm. This view is supported by several research studies Hardy and Parfitt (1994), Mahoney, Gabriel et al. (1987); Orlick and Partington (1988). To achieve an elite level in sport, an athlete must have the motivation to train hard on a daily basis and to overcome any obstacles or setbacks that athlete might face in reaching or maintaining that level of performance.

Concerning Co-orientation, coaches and athletes spoke about their perceptions regarding each other. Athletes pointed as a very positive aspect, that their coaches were very good listeners and communicators. These coaches, understand that communication is a two-way street and involves a back and forth between coach and athlete. These findings match a study by Jowett and Cockerill (2003). In their study the majority of the participants referred to the important role that interpersonal communication had to play in the relationship with their coach, regardless of its content. And these results are also in line with findings of Gould, Guinan et al. (1999). They have reported that effective communication between coaches and their athletes is a significant factor that contributes to the team's success.

Another important factor was that for English dyads the drive was everything, like for instance to be committed 100% to the cause, for achieving the goals. As on the other hand Portuguese dyads gave more importance to the attitudes, like being professional, responsible, competent, etc.

As regards to the last construct, Complementarity, coaches and athletes were asked to reflect how well their personalities and characteristics balance to create a positive environment for Athletics. So these eight dyads had similar views as they believed that

athletes and coaches should make decisions together, as this was very important to create an atmosphere of safety on the track that was absolutely crucial for optimal learning and peak performance.

These findings are similar with a study by Jowett and Cockerill (2002). They've stated coaches' and athletes' required athletic roles and tasks. According to her findings all coaches and athletes described their behaviours as being complementary, whereby the coach leads and the athlete executes, indicating a reciprocal pattern of behavioural interaction.

A psychometric inventory was then created to measure the model (CAR). The Coach-Athlete Relationship Inventory (CARI) was then used to do a cross cultural comparison of the survey data between England and Portugal athletics dyads. CARI, an online pilot survey was then made available for coaches and athletes of England and Portugal to answer it. A total of 102 respondents from both countries completed the online pilot survey of the inventory (CARI). More in particular a total of 54 coaches and athletes from the England responded to the survey, of which 32 were female and 22 male. Regarding Portugal, the sample was made of 48 coaches and athletes of which 27 were female and 21 male. Regarding the age range, this sample varied from 16 to 62 years old. Several tests (MANOVA and correlations between the 8 scales) were performed aiming to answer the research questions.

To answer the research questions, a one-way between-groups multivariate analysis of variance was performed to investigate if there was any differences between the eight dependent variables and gender, and the between the eight dependent variables and age group. The results have shown that there was no statistically significant difference between males and females on the combined dependent variables as well as no statistically significant difference between age groups on the combined dependent variables.

Secondly the aim was to see if there was any differences between the eight groups of dependent variables and country. As expected, it could be seen that there was statistical significant differences in all the eight variables and country, this means that the relationships vary between countries.

In sum, all this information collected through the interviews showed us that English dyads are much more focused on the outcomes (results), as athletics is pretty much the only income they have, especially athletes. Athletes are family providers, so they need to succeed no matter what.

Inventory Development and application

As mentioned in the previous section, another purpose of this study was to develop and validate an inventory to understand the coach–athlete relationship based on the constructs. This instrument was built with the purpose of being a diagnostic tool for coaches and athletes and also to be useful for researchers as a comparative research tool. The inventory was developed based on the participant’s interviews responses, and predominantly using the participants own words. A Likert scale was chosen as is often used in social sciences and with questionnaires that ask people about attitudes, beliefs, and self-reported behaviours.

On the basis of 8 constructs definitions a list of 64 potential scale items was generated. In this case, validity was partially achieved by using the participants’ statements from the interviews, and also, theoretically from the conceptual framework that was developed. Following this, CARI was piloted with 102 respondents from England and Portugal. Subsequently, 64 items were factor analysed, and a total of 57 items survived in the 8 scales. In conclusion the inventory consisted of separate scales, ranging between 6 and 8 items and moderately good internal consistency.

Table 21 internal consistency for the 57 items

Scales	Number of items	Cronbach alpha
Cohesion	7 items (1 item deleted)	.760
Closeness	8 items (0 item deleted)	.955
Power	6 items (2 items deleted)	.911
Complementarity	8 items (0 item deleted)	.955
Commitment	6 items (2 item deleted)	.921
Compatibility	8 items (0 item deleted)	.895
Co-Orientation	8 items (0 item deleted)	.956
Motivation	7 items (1 item deleted)	.905

The utility of the CAR was also demonstrated by using the inventory to explore the differences between perceptions of Portugal and England elite athletes and coaches.

Research Methods limitations

Several limitations need to be acknowledged and addressed with respect to this study. The first limitation was the limited time and ability to work with the English dyads. It was essential for this study to interview England coaches and athletes, so that the cross cultural comparison could be done. Therefore the interviews had to be made via skype. Skype was very useful, because it helped not to limit the range of participants to those that could be only physically reach and interview in person. Also, when using Skype, the interviews were conducted from the comfort of participants 'own home, making them feel more relaxed. Another important issue was that standard ethical procedures had to be adapted. All the English dyads had a chance to read the consent form, as this was sent via email, and also the participants were pre-warned and asked if the interviews could be recorded.

This research was also limited by the sample size on the quantitative part of the study. A lot of people had an attempt to answer the survey but not all have completed it. So perhaps the survey had too many items to answer. Also, for Factor Analysis larger sample sizes are preferred (Kline 2002).

Another limitation, is that this study may not apply to other populations, like different individual sports as this was only tested in Athletics, therefore, future research should look at replicating this study in other individual sports such as Swimming, Gymnastics, Tennis, etc. Replicating the study in other sports would also help to increase the sample size.

So the current research should be considered the initial development, pilot and first application of the CARI, future research in this area should focus in obtaining larger sample sizes using a variety of different sports (swimming, gymnastics, etc.). However one issue that perhaps cannot be overcome is that elite sports persons will always be in small numbers, and therefore representative or statistically robust sample sizes will always be difficult to achieve.

Contribution to research

An important aspect of this study was to focus on the coach and athlete as equal. Having said that, interviewing coaches and athletes was important to provide a complete picture

of the coach-athlete relationship. In addition a new research tool was created, CARI. CARI is a diagnostic tool for coaches and athletes better understand their relationship, and therefore improve their performance. So the developed scale may be used for conducting research within this line of debate.

Contribution to our understanding of athletes and coaches

This research cannot but send a powerful message to coaches to invest in a good coach-athlete relationship, and to make sure that the relationship is perceived in the same way by the athlete. A good relationship coupled with autonomy supportive coaching, may be the only formula that leads to a perception of an autonomous environment by both participants.

The results obtained, re-confirm the importance for coaches to invest in a good relationship with their athletes. However it is important to bear in mind, that this research has also shown that there is some divergence in the way the athlete and the coach perceive their relationship. Therefore, besides investing in a good coach-athlete relationship, coaches need to check and re-check how their athletes really perceive this.

This research indicates that a lot of work still needs to be done by coaching research and coaching education, in order for coaches and athletes to get to know better how they are being perceived.

Understanding of the CAR from both perspectives

CAR is a coach-athlete relationship model that perceives coaches and athletes with the same relevance. This model was divided in three main areas, the participant's identity that outlines the environmental, personal and leadership factors on the coach and athlete lives. Getting to know the participants was extremely important as their background revealed essential information to understand the way they see sport. As role identities, when fully understood, can be a very useful concept when seeking to understand the behaviours of individuals.

The next part of this model was the relationship variables (Cohesion, Closeness, Power, Complementarity, Commitment, Compatibility, Co-orientation, and Motivation), that were thought to be more important for the coach and the athlete relationship. And last but equally important, the outcomes (Performance, Satisfaction, Competence, Connection,

Confidence and Character/Caring) that seem to be common for elite coaches and athletes.

In sum, CAR, is of significance to elite coaches and athletes as it expands upon the traditional focus of the athletes' performance by recognizing the same importance and acknowledge the athlete and the coach as active participants within the coach-athlete relationship.

Future research

There is the need for more research in the area of coach self-knowledge, as the perception of ourselves is so limited, how can we claim to fully understand how we act - or better still, how can we claim to fully comprehend others? Zalkind and Costello (1962) found that, better understanding of self allows people to have a more accurate perception of others. Hence, it would be wise for coaches to invest in self-awareness.

Furthermore, future research in this area should focus in replicating the study in multiple contexts and individual sports, to build up a body of evidence. As this study only contemplated Athletics, CARI could be used in a different range of individual sports (gymnastics, swimming, Tennis, etc.) and also add more European countries to build a stronger sample.

Contribution to practitioner

The CAR model and CARI enables coaches and athletes to better perceive their relationship, more in particular to understand each other's goals, values and opinions. Also, a few athletes during the interviews said, that they really enjoyed when coaches prepared different sessions, or different environments. Thus, the coach needs to take into account the realities that are taking place outside the organization, such as the introduction of new technologies, or new theories and information, all of which will impact the level of athletes' motivation and hopefully his level of performance. In the coach-athlete relationship, the athlete needs to know that the coach is keeping up-to-date of the knowledge or new theories that are taking place in the world of sports, in order that athletes can feel secure that they are being coached by someone 'knowledgeable' who can be trusted and relied upon.

Furthermore, if CARI is made available on the official sports online platforms it could be use at the beginning of the season by all coaches and athletes. With the aim of getting to

know each other's thoughts, opinions and goals, and to help them planning the season based on a much solid and stronger relationship.

Contribution to policy makers

This research can contribute for policy makers consider investing in sport relationship research so that the perception of coaches and athletes could be more explored and also further issues could be discovered and addressed.

Another important issue for policy makers is to promote the availability of new resources for coaches and athletes (up to date equipment, knowledge, etc.) as financial support will result in more active and knowledgeable participation resulting in a higher level of performance.

It would be also very important that sport policies of local authorities could support and to train coaches to promote social inclusion and coordinate the efforts of other partners, such as clubs, associations and sport agents.

Something important to look at in both countries could be the inclusion of soft skills as part of the coaches' qualification. Soft skills include: cooperation, leadership, respect for others, knowing how to win and lose, knowing how to manage competition, etc. Soft skills are truly important when dealing with other people, especially in sports world.

Another important issue to look at is the low salaries for coaches and athletes, especially in Portugal. As it could be seen from this study, Portuguese coaches and athletes can not commit full time as they need to have another job to be able to live. Particularly athletes, they know that they can't make a leaving out of athletics, so they work or study alongside to build their future. Being a full time athlete or coach is a privilege for just a few so maybe if there was financial support, more elite coaches and athletes would arise.

It would be good for England to have some kind of financial support to help facilitate the inclusion of migrant athletes and England coaches that commit to train them. Some athletes don't have any kind of support from their family, club, or country, still the love for the sport makes them do what it takes to try and become the best they can possibly be. For migrant athletes it includes leaving a whole life behind in search of that dream. Likewise, coaches will need extra support to look after these athletes as they'll be their only support on a foreign country and don't have anyone else that can support them in hours of need.

Furthermore, CARI, could be an important tool to bring coach and athlete together as one.

Conclusion

Nowadays, coaches take an undeniable responsibility in sport, socially and educationally. Thus, they have a great influence on the athletes they work with. On the other hand, athletes at this time and age are much more than just people who practice sports. Athletes became more demanding, as they are better informed, they question more, they want to be part of the decision making process, they want to be heard and they also have the capacity to influence their coaches.

The purpose of this study was to explore coaches' and athletes' perspectives about what makes up the coach-athlete relationship using a mixed methods research approach. To comprehend those complex relationships, several aspects that were raised during the interviews, had to be taken into account, such as, identity of the dyads, variables and outcomes.

During this study several questions were raised, such as: what important factors make the coach-athlete relationship stronger? What are the barriers in the coach-athlete relationship? Is there consistency in the perceptions of the relationship between coaches and athletes?

The findings are remarkable for their simplicity, a complete understanding of each other's needs developed through listening to each other, share information, an effective two way communication, as long side as many other simple things like respect, caring, trust, confidence, commitment, personal admiration and support are considered by these dyads to be very important factors to build a strong and successful relationship. They understand that there are no short cuts to build this type of bond, and they also truly believe that trust is the building block of a strong relationship. Once trust is broken it can be impossible to repair or restore.

Another important aspect that was raised by the coaches was the importance of providing a safe environment for their athletes and at the same time their athletes expressed the necessity to feel safe.

Concerning the barriers in the coach-athlete relationship, coaches testimonies revealed that travelling a long distance, making personal sacrifices (spending their own money) and feeling lack of commitment, could be a major barrier in their relationship. On the other

hand, athletes stated that making false promises, feeling pressured by their coaches and lack of time are aspects that can be extremely difficult to deal with.

Coaches and athletes are capable of perceiving their relationship from two different perceptual perspectives, both of which can define the quality of the coach-athlete relationship. After listening to both English and Portuguese dyads testimonies it was very notable the way they spoke about each other, and the way they perceived each other. Both coaches and athletes saw their "partner" with personal admiration, full of strong will to pursuit their goals, and most of all, they perceived each other with drive of character.

Based on the interviews responses a new psychometric scale was develop with the aim of evaluate the coach-athlete relationship in individual sports, CARI. This research tool contributed to better understand the differences between both countries based on the eight constructs. CARI was developed to be a diagnostic tool to help coaches and athletes to better understand and perceive their relationship. This instrument gives the same relevance to the participants, and comprises several essential aspects that characterized their relationship.

The coach-athlete relationship is a very complex issue. Especially nowadays that there is a constant desire to achieve more. Both coach and athlete have that desire to achieve great performances and outstanding victories. At this level, they all have winning attitude, mental-toughness, strength and the character, but sometimes this isn't enough.

This research cannot but send a powerful message for coaches to invest in other aspects of their education, as having strong technical and tactical knowledge for a given sport may make a good and highly successful coach but nowadays, it is not enough. The research into emotional Intelligence does suggest that other qualities can play an important role and separate good from great coaches. Based on emotional intelligence the coach is one who leads with emotion perception, emotion regulation, self-motivation, trait empathy, and social awareness and they will create a team environment conducive to enjoyment, trust, and maximal effort resulting in better performance.

In sum, coaching is not just about designing an annual training plan or prescribing an individual session it is about building successful coach/athlete relationships, and that takes hard work. For such relationships to work requires mutually compatible philosophies and an ability to get inside of the head of one another. This way coaches and athletes can

Chapter Seven

work out together what they want and more importantly what they need. 'Want' and 'need' are not the same thing. Consequently seeing and understanding the "world" from the coaches/athletes' perspectives is the key.

The use of CARI comes in this line of development, to better understand the way they perceive each other, to help to improve the communication between them and consequently to build the so much desired successful coach-athlete relationship.

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Appendix A – Participant Information Sheet



Participant Information Sheet

Study Title: What makes up the coach-athlete relationship?

Researcher: Sara Almeida

Ethics number: 7672

Please read this information carefully before deciding to take part in this research. If you are happy to participate you will be asked to sign a consent form.

What is the research about?

I'm a PhD student of the University of Southampton. Through my years of experience as athlete and coach, I was always passionate about the coach-athlete relationship and what it could be done to unite them more.

When I started to do my research I came across a variety of studies made in collective sports, and I realised a big lack of studies in Individuals sports.

Researchers have focused predominantly on the relation between cohesion and performance in sports teams. The purpose of this study is to understand the cohesion between the coach and athlete in Athletics (and other potentially important factors also associated with cohesion) .When we talk about individual sports such as athletics, the relationship-members operate on a one-to one basis, whereby the coach deals with each one athlete separately. In fact, coaches of individual sports appear to be involved in all facets of their athlete's lives. Therefore, the dynamics involved in individual sports are much different than those in team sports. These findings will be very useful for all coaches and athletes of individual's sports, researchers, and fans.

Why have I been chosen?

You have been chosen, because the aim of this study is to investigate the relationship between the coach and athlete in Athletics taking in to account only Elite Individual Sports (county level is the minimums considered). As a sports student, it would be of great importance if you could be part of this research.

What will happen to me if I take part?

On the day, you will fill out the questionnaire online, attached to the questionnaire will be a form that will inform you of the general purpose of the research and your rights as a study participant record the interview. The results diffusion and that all the information is going to be confidential and anonymous.

Are there any benefits in my taking part?

As part of this sample you will be of extreme value for our research regarding individual sports. You will be contributing to improve the bond that unites coach and athlete.

Will my participation be confidential?

Only the research team will have access to the responses from participants. All files associated with the project will be transferred via secure internet pathways and stored on a password-protected University of Southampton computer.

On completion of the study, all records and files will be managed in compliance with the University's data protection policy.

During the study, participants will remain anonymous.

What happens if I change my mind?

As part of this sample, if you feel that at any time you're not happy with something, or that you've changed your mind, you have the right to withdraw at any time.

What happens if something goes wrong?

In case of something going wrong, feel free to contact the research governance office of the University of Southampton.

Where can I get more information?

You can get more information by contacting the research team.

- Sara Almeida: sfga1g09@soton.ac.uk
- Dr. John Shultz: J.B.Schulz@soton.ac.uk

Appendix B – Consent Form

CONSENT FORM (Version 1)

Study title: What makes up the coach-athlete relationship?

Researcher name: Sara Almeida

Study reference:

Ethics reference:7672

Please initial the box(es) if you agree with the statement(s):

I have read and understood the information sheet (05/11/2014/version 1)
and have had the opportunity to ask questions about the study

☐

I agree to take part in this research project and agree for my data to
be used for the purpose of this study

☐

I understand my participation is voluntary and I may withdraw
at any time without my legal rights being affected

☐

Name of participant (print name) _____

Signature of participant _____

Name of Researcher (print name) _____

Signature of Researcher _____

Date _____

Appendix C – Interview Schedule

INTERVIEW SCHEDULE

I Part – Development of coach- athlete relationship

1. What does it mean for you a positive relationship?
2. How would you describe the nature of your coach-athlete relationship?
3. Was there any particular reason for deciding to work together as a coach-athlete?

II Part – Cohesion

1. How significant is sport for you?
2. What does it mean for you to have success?
3. What are the goals that you hope to accomplish in your profession? Who set those goals?
4. What motivates you to stay with your coach/athlete?
5. Do you think of yourselves as a unit?
6. How well do you know each other?
7. What do you expect from your coach-athlete?
8. Do you think your relationship is stronger now, or when you first started? Can you explain why?
9. Do you think you could get more united? In what ways?
10. What do you think is more important?
 - Interpersonal relationship between coach/athlete
 - Accomplishing the goal

III Part – Power relationship

1. How does power influence cohesion?

Appendix C – Interview Schedule

2. How do you “apply” your power as a coach?
3. What are the characteristics that you prefer in your athletes/coaches?
4. What’s the importance of communication in your relationship?

IV Part – Closeness

1. How do you think your closeness affect cohesion?
2. How close do you feel with your coach/athlete?
3. Is it important for you to have a close relationship with your Coach/athlete?
4. What do you like about your Coach/athlete?
5. Is there anything that you dislike?
6. Does your coach/athlete support you? How?

V Part – Commitment

1. How do you think your commitment affect cohesion?
2. What does commitment to the coach athlete means to you?
3. Are you commitment to each other? In what ways?
4. How important is commitment in your coach/athlete relationship?
5. Do you trust in each other?

VI Part – Complementarity

1. How does complementarity influence cohesion?
2. Who is responsible for defining the roles/responsibilities?
3. How does your coach/athlete interact with you?
4. Do you think it’s important to reward efforts?
5. What’s the importance of feedback in your relationship?

VII Part – Compatibility

Appendix C – Interview Schedule

1. How does compatibility influence cohesion?
2. Can you name some of your coach/athlete qualities?
3. Which one do you think is more important?
4. How would you rate you're overall relationship with your coach/athlete? (1-5)

VIII Part – Co-orientation

1. How does co-orientation influence cohesion?
2. What's the essence of a successful Coach/athlete partnership?
3. How would you describe the ideal coach/athlete?
4. Do you often talk about sport issues?
5. Do you talk about your athletic future with your Coach/athlete?
6. Does your coach conduct team meetings during the season? If yes, do you think they are important? Explain why...
7. Do you think cohesion leads to performance or performance leads to cohesion?

IX- Motivation

1. How does motivation influence cohesion?
2. In which ways does your coach/athlete motivates you?
3. What motivates the coach/athlete to stay together?

X- Leadership

1. How does leadership influence cohesion?
2. How would you define your leadership style?
3. How would you describe your coach/athlete behavior?
 - Training and Instruction
 - Democratic

Appendix C – Interview Schedule

- Autocratic
- Social support
- Reward

Appendix D – Interview Transcripts

Interview Transcripts

England athlete

Date: 19/03/2011

Time: 18:00pm

Sara: First question, what does it mean for you a positive relationship? Thinking about the coach and athlete.

Athlete: a positive relationship is one where you can trust your coach completely. So, for me there is no issue in terms to what I can talk to my coach or what I can't. I should be able to talk to my coach about anything, from how I am feeling, to performances, to my life, a side of athletics because a coach affectively is not just a...particular in athletics and individual sports is not just about what you do at the track. It's also about the stuff you do away from the track. So you need a coach that's balanced someone to balance you.

Sara: Yes, absolutely. How would you describe the nature of your relationship with your coach? Is it like that?

Athlete: yes, I have a fantastic relationship with my coach. I trust him completely, I am confident in me as he is in me too. We tend to talk every day, we spend a lot of time over the phone and obviously face to face and yes, we talk about... we love athletics, as well as we talk about my personal training, how I'm progressing we also talk about how the guys in the world are doing, how can we improve the actual sport. Affectively be good role models of my event in athletics.

Sara: that's brilliant, yes, really good. Was there any particular reason for you two to decide working together, or how did you meet?

Athlete: oh yes, a variety of reasons. I used to be coached earlier on, in my early career by one particular coach and I have missed the Olympics by 17cm so I have decided to change coaches. The coach I was moved to, wasn't very good unfortunately he got ... by the federation 6 months into his job. I have then was moved to another coach who they

Appendix D – Interview Transcripts

have told me three months into the job that he didn't know how to coach my event, so for two years I was in a limbo because I didn't have a good coach, I was very frustrated with the sport and my federation and I was very close to giving up. My existing coach, I have known him for about 8, 9 years, he was an athlete himself, actually he is still know, he is doing his last competition as we speak in Belgian right now, he is doing the masters. So, my existing coach is a coach and athlete. How did we meet? We used to be in the same group, in the same training group a few years ago with my first coach. How did he become to be my coach now? Well when...the kind of problems with my previous two coaches didn't work out, he seem to be the best logical person, one because he's passionate about the event, two because I trust him and that's really important, it's probably the most important thing, three because this is a long term project for me and for him. He wants to be a world class disco's coach and for me, I want to establish myself as a world class athlete, so that's how we became to be a coach-athlete. I have been working with Tyler now since September 2010. And yes, it's been going great. He's new in terms of coaching in my level, his very very new; he doesn't hide away from that, but he's also very excited and very passionate.

Sara: So, you are learning together isn't it?

Athlete: yes, we are learning together, I mean, I think the thing is, I have always been coached by world class coaches to some extension, individuals who would say that they were world class coaches. Tyler doesn't fall into that category, but he's very honest about the fact that he doesn't. I'm the first elite athlete that he's coached, so, we are not naive to the fact that will be a number of challenges; I think the other thing for Tyler is the hard work was already done in terms that I'm ready at that stage, as a coach he's trying to get me let's say from county to national, from national to international do you know what I mean? He doesn't need to do that hard work, where there is a couple of other athletes in the group he's actually working to get them let's say, to my level.

Sara: yes

Athlete: So yes, it's good, it's nice. It's refreshing, it's refreshing because there is less egos involved, it's refreshing because Tyler it's new to it so he's equally learning and because he's learning he's opened to new ideas. What I have tend to find with a lot of say establish coaches is that some of them because they are good on what they do naturally which is fine, they are less incline to learn about new ideas and how the sport has moved

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on ,and always want to do the same thing because, they don't feel comfortable, where in Tyler' s opinion athletics moves on every year and we only need to look at let's say 100 metres, ten years ago the world record was probably, I don't know, 9,99 or 9,98 today is 9,69...

Sara: exactly

Athlete: so, and I feel across all of the events, the boarding events have moved on. In order for athletes to kind of progress that level and to get better we need coaches that are going to be open minded and be... well they need to be honest and say hey look, I don't know everything but I'm willing to learn and I'm willing to try new things so I can work better myself and get the best results out of my athletes.

Sara: hum hum...

Athlete: I think Tyler falls into that category, because our training isn't, it's the conventional way, we do a lot of hard work. We also do a lot of work away from the track, we go to woods and do lots of run. because Tyler is Tyler he is an ex-army guy, he used to be in the army. so he spent 20 years in the army, he's got that kind of... he's strong, determined, competitive, resolute my mine set, and he's tenacity who absorbed the rest of us. Particularly me, so as a result of that we do a lot of say army style training circuit.

Sara: and that works for you?

Athlete: yes, it's really good for us because one it's about injury prevention, two, keeps you fit all year around and three it just gives you a good solid based to always have. So yes, it's pretty cool.

Sara: ok, well done. How significant is sport for you?

Athlete: How significant?

Sara: yes.

Athlete: very, on a scale of 1 to 10, it's a 10.

Sara: 10.

Athlete: sport has played a massive impact, to me it's opened probably a number of doors and opportunities and has given me a lot of confidence, and the opportunity to try more.

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Has given me the opportunity to obviously meet you so, because I wasn't doing this sport and you and I wouldn't be talking today.

Sara: yes.

Athlete: it is given me the opportunity to meet some very very very interesting people and most of all it has given me the opportunity and a platform for me to develop as a person and as a men. I think given the environment we are in it is very difficult for youngsters to start something different, under there is no footballer as you know in athletics because it is an individual sport it is all about yourself, you need to push yourself, your licking out what you put in, so if you are hardworking you will collect the rewards and it teaches you so many things, about patience, tenacity, being a good role model, just having a good lifestyle, and it is amazing how the ... outside of our place have a massive impact in your head... so for me athletics it is important, it's more so important then leading into two of them then probably ever.

Sara: well done, that's it. What does it mean for you to have success in your career?

Athlete: success it is probably, if you speak to any athlete anyone as decent they will tell you success is... anyone that tells you otherwise is probably lying to you. Success for me is probably winning medals, we get into the sport as well as obviously for the fun of it, we get into to it because we love to win, and for me winning is everything, I will tell you success and winning come hand in hand.

Sara: hum hum...

Athlete: so, but at the same time if I'm throw a PB and didn't win I equally be successful. so success is important because it measures on a personal note, it measures how well I'm doing and how well I'm able to control my nerves and everything that is a distraction when I'm competing.

Sara: yes. hum hum . Did you set or do you have any goals that you hope to accomplish during your career?

Athlete: yes I do. I have got personal goals in the gym, and I have personal goals in the track, I mean, in my career I would like to throw between 60 and 71 meters.

Sara: yes

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Athlete: I would like to win a medal at the major championships, like Europeans, or world, or Olympics. I would like to win a medal and I would be happy with that, and I would like to build all that. but aside from that I also would like to give to athletic, give back to the local community because as I said earlier on this career as given me a platform to kind of develop myself to open a lot of doors and opportunities and for me it is important to give back to the sport, like to help out a fellow athlete that is struggling or do things where I can advice other athletes, I would love to do that, because I wasn't given those opportunities and is not worth for me knowing what I know now to keep it to myself.

Sara: yes, that's brilliant. Who set those goals? Was it you? or your coach? or together?

Athlete: well, was a combination of both. I always set myself personal goals, aggressive goals, sometimes more realistic, but I'm the type of person that I like to commit with something so even if I know that I'm about to lose a fast race I will aim for it anyway, because you never know.

Sara: exactly.

Athlete: I'm really optimistic. However my coach as also set goals for me personally, he sets goals which realistic he thinks that I'm going to accomplish. He hasn't told me, he said he is going to tell me at the end of the season.

Sara: oh, that's cool. Thinking about your coach now and you, do you think of yourselves as a unit?

Athlete: yes, definitely. We are a unit.

Sara: How well do you know each other?

Athlete: intimately, I have been in trips with him a few times and when we can, I have spent 2 or 3 weeks with him away from this country where all we do it is training. I have been in competitions with him, I have stayed in hotels with him, I have dinner with him, I have dreamed with him, so...

Sara: so it is not just about training it is about the social as well.

Athlete: yes, I know, he is been in my house for dinner, I know his wife very well, I know his son, I know his grandparents by the way. So yes...I know him pretty well.

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Sara: What do you expect from your coach-athlete?

Athlete: trust, loyalty and commitment, and also because I had some bad experiences with a coach I also expect, is difficult to say, how to word this, basically in the event of me wanted to move on, if I find myself becoming stagnant, without improving, I'll expect my coach to understand that. I will need to move on so, although he is a coach I would expecting that he wants the best for me at all times either that would be with him or with somebody else. Which is also very difficult I understand because, as a coach he spend a lot of time with that individual they almost become a like a son or daughter. So I know coaches sometimes find very difficult to let go. And yes, the most important thing is probably trust, commitment, loyalty, faith, and inspiration, I want my coach to inspire me.

Sara: Do you think your relationship is stronger now, or when you first started?

Athlete: stronger now, 100% sure.

Sara: Do you think you could get more united?

Athlete: yes.

Sara: In what ways?

Athlete: at the moment, I only see my coach twice a week.

Sara: so you need to see him more often?

Athlete: if I saw him more will definitely keep us more united, and he can also see the... because Tyler only sees my track's sessions he doesn't see my weights sessions, so if he was there he would probably see what I do and be able to apply ideas obviously for me to move on and improve. What almost coaches probably do.

Sara: so more support? yes? be more present?

Athlete: yes.

Sara: ok. What do you think is more important, the Interpersonal relationship between you and your coach or accomplishing the goal.

Athlete: hum...

Sara: is like winning the medal or having a really nice relationship with your coach.

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Athlete: if I'm honest it doesn't really matter if I like my coach or not because winning the medal is more important. But for the most of all it comes hand in hand because if you're winning you have a good relationship anyway. Winning is really important, but relationship is also important what I would say is you can't win without having a good relationship.

Sara: yes. how does power influence cohesion?

Athlete: sorry what was that?

Sara: how does power influence cohesion? Power in the way that is the ability that your coach has to get you doing what he wants. ok? how does that influence that union that you have between you two?

Athlete: my coach is in charged so what he says goes.

Sara: so what he says goes.

Athlete: yes.

Sara: does it matter what you think?

Athlete: it matters what I think because I have a little bit of experience and a word of knowledge. but in a long term he's always in charge so if he says I need you to do whatever, 5 press ups or 10 sit ups, or hills I just get on with it, I wouldn't question it. if I start question my question I wouldn't be with him.

Sara: so that's why you trust him so much? Because you trust him, you do it?

Athlete: yes.

Sara: How does your coach "apply" his power?

Athlete: Tyler is not aggressive, is a very very nice guy, very friendly, you never think that he was in the military except from me. How does he coach? He is into a fun environment, he is very relaxed, very technical, we get a lot of work done, he's very driven, target oriented all the time and he has this rule he has this thing that he says, when one falls we all fall. So is very much team even dough this is an individual sport.

Sara: What are the qualities that you prefer in your coach, from all the coaches that you had, what are the qualities that you like more?

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Athlete: I like the drive of character, strong minded, I would say someone who believe in themselves, and believe in what they say and in what they do. So I'll give an example, if Tyler says I know by doing this that you can throw a lot faster, if you do this you will do that, that to me means he is 100% sure.

Sara: What's the importance of communication in your relationship?

Athlete: oh it is very important, you can't survive without communication, believe me, you can speak with any coach or any athlete of any sport, and they will say communication is the key to have a successful relationship. That is just not for athletics, is in marriage, in a work environment. Communication it is the single thing that probably separates good and bad relationships. That's why I speak to my coach every day.

Sara: ok. How do you think closeness affect cohesion?

Athlete: I feel really close to my coach that's why we are very united.

Sara: ok .Is it important for you to have that close relationship with your Coach?

Athlete: I think is important to have a close relationship with my coach, but is also so important that we don't lose sight of the respect, between the coach and the athlete, so he needs to be like a boundary where it is clear that you are the athlete, or who is the athlete and who's the coach. The minute you lose that respect is the minute you can't continue anymore. You need to know the distinction between coach and athlete all the time.

Sara: ok. What do you like more about your Coach, thinking in your actual coach now?

Athlete: I love his honesty, I love his passion, I love his excitement, and he is always willing to learn.

Sara: Is there anything that you dislike? Or not?

Athlete: no... I dislike the fact that I can't see him every day, but aside from that I love his character and his life.

Sara: Do you feel that he supports you?

Athlete: sorry?

Sara: Do you feel that he supports you as a coach?

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Athlete: yes. he always supports me.

Sara: ok. How do you think commitment affects cohesion?

Athlete: commitment?

Sara: yes, is it important to be committed or not?

Athlete: sorry what was that?

Sara: is it important for you and your coach to be committed to the sport that you do, to your training, etc?

Athlete: commitment is very important, because if your not, you are not going to achieve what you want to achieve. both parts needs to understand what he goal is and want to commit to it. if both commit to that goal we will accomplish it, if we don't commit to it fail will happen.

Sara: Are you really committed to your coach?

Athlete: yes.

Sara : that's it. How important is... you told me about the importance of commitment in your relationship, do you think your coach is committed to you to?

Athlete: yes, definitely.

Sara: in the same way that you are?

Athlete: yes, I don't think. I know he is.

Sara: ok, brilliant. Another subject, how does complementarity influence cohesion? complementarity refers to whether you or not and your coach interact in the decisions making about training, things like that.

Athlete: sorry, I don't understand the question.

Sara: I was talking to you about complementarity. in what ways does that influence your union with your coach? complementarity is about, how do you as coach and athlete interact with each other? do you interact with your coach when you need to make decisions?

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Athlete: oh it is difficult. we do interact with each other. he will make a decision but if I realistic don't think I can accomplish that particular task for a valid reason because I have an injury or because I'm not very flexible so therefore I can't complete that particular exercise or drill, but yes we work around it.

Sara: so you make the decisions together?

Athlete: yes, we do. Ultimately he has the final decision but we do make the decisions together.

Sara: And that is important to keep you united?

Athlete: it is, because you need to, in order to have a successful relationship at whatever level, elite or world class, you need to understand the athlete and the athlete needs to understand the coach. So you need to have a complete solid relationship where it is unmovable by anything. And if you have a good grasp of that and you have a good solid relationship 9 times out of 10 you are going to succeed in what you want to succeed because you have no doubts. When doubts creep in, questions creep in, and when questions creep in then you are uncertain.

Sara: hum, hum. How does your coach interact with you?

Athlete: ahhh

Sara: is he approachable?

Athlete: yes, he is very approachable, he is very friendly, he is caring, he is honest, he is realistic and he is very diplomatic.

Sara: Do you think it is important to reward efforts? Your efforts? For example, if you do your training really well does he say something to you? Does he reward you in somehow?

Athlete: yes, it is always good to be rewarded. I think as athletes we like our ego to be strengthened every now and then. So yes, it is always good for the coach to reward the athlete in a complementary form side, if he says well done for today, that I was good, well done, and I try today, you were a really good listener today. Something positive, always creates a kind of a fun atmosphere. And if he says at the end of the session it always work better because you look forward to come into the next session, because at the end of the session you had some positive notes.

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Sara: What is the importance of feedback in your relationship?

Athlete: very good, it is very important, that is as important as communication. the feedback will tell you how well you are doing, how much you need to improve and where you going wrong, so feedback it is important because if initially I am doing the wrong thing there is no way I am going to improve so, if I am doing the right thing I am going to improve, so feedback is important.

Sara: talking about compatibility, so that means thinking about personalities, traits, and your coach as well. How does that influence cohesion?

Athlete: ahhhhh

Sara: do you think you need to be similar or not?

Athlete: it doesn't really matter, it is irrelevant because... the fact is he can be aggressive or a pussy cat as long as at the end of the day he can keep his job done that is what it matters. I am not really bother about the characters or the compatibility of a coach because, sometimes the way a coach is to people and the way he is to an athlete are two different things. So that is for me isn't as relevant. Some coaches are very timid and when it comes to the athletes they are the direct opposite, and some are really aggressive people and when it comes to the athletes they are very timid so, it is all relative.

Sara: How would you rate you're overall relationship with your coach from 1 to 5?

Athlete: 5

Sara: 5, that is great. How does co-orientation influence cohesion? co-orientation means like, when you share beliefs between you and your coach.

Athlete: yes, it helps the relationship if that is the case but it is not necessary. I mean I'm a Mussolini, I do not eat pork, my coach eats pork it doesn't mean I have a better or worse relationship is just different.

Sara: What is the essence for you of a successful relationship?

Athlete: what is the essence?

Sara: yes.

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Athlete: trust word.

Sara: How would you describe the ideal coach? Is it like your coach?

Athlete: yes, yes.

Sara: Do you often talk about sport issues?

Athlete: about what issues?

Sara: sport in general...

Athlete: yes, we talk about sport all the time, i'm a big arsenal supporter so we talk about football quite a lot. Why are you laughing sara? because I'm a arsenal supporter?

Sara: well I support F.C.Porto so eheheh

Athlete: do you support Porto?

Sara: yes.

Athlete: oh thank you very much.

Sara: yes but we lost, don't laugh about it. ok. Do you talk about your athletic future with him?

Athlete: yes.

Sara: that's good. Does your coach conduct team meetings during the season? just to see what's wrong, where you can improve, things like that?

Athlete: yes.

Sara: are they important for you?

Athlete: yes.

Sara: ok. Do you think cohesion leads to performance or is it the other way around?

Athlete: cohesion leads to performance. Definitely leads to it.

Sara: How does motivation influence cohesion? Does your coach motivates you to keep training, to keep achieving things?

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Athlete: yes, how does motivation leads to cohesion, if you are motivated and someone motivates you you're more likely to want to accomplish your goal.

Sara: In what ways does your coach motivates you?

Athlete: he pushes me, he inspire me, he tells me every day that I'm going to accomplish my goal, and our goal. He reminds me of my strengths all the time and he reminds me of my weaknesses to become better. And more important, he, psychologically he encourages me to believe in myself.

Sara: that's really good. So, what motivates you two to stay together?

Athlete: well, one because we got 2012 next year, and two because we were friends before we were coach and athlete, so we have a good relationship.

Sara: so that's the essence of everything? Having a good relationship?

Athlete: yes

Sara: ok, that's really good. ok, the last point of this interview, thinking about leadership, how does leadership influence cohesion?

Athlete: yes, 100% my coach needs to be a leader.

Sara: he is a leader to you?

Athlete: yes.

Sara: And that makes you more united?

Athlete: he needs to be a leader to keep us together but it also needs to be a leader because he is the coach. So when everything goes well is a result of him and it is training and it is programme, but if it goes bad it is also a result of him to so. But he is a leader.

Sara: How would you define is leadership style?

Athlete: he is not a dictatorship or autocratic, it is sounds silly but he is just friendly.

Sara: ok if I give you 5 points, about leadership, like, training and Instruction, democratic, autocratic, social support or reward, which one would you choose to describe him?

Athlete: social support.

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Sara: social support, ok, brilliant. That was your last question. Do you want to say something else? That is important, that is relevant or?

Athlete: I would say, athletics is a tuff sport, and I think your investigation will be intrusting in particular in athletics in this country. Athletes are in a situation at the moment where a lot of coaches are putting a lot of contracts on the athletes because they are afraid the athletes will leave. Essentially if half of them were happy there would be no need for contracts.

Sara: yes.

Athlete: not that obligation of contracts, if contracts are in a sense of for the reason of say gives you money, the coach is getting paid as a consequence of the athlete, so for example if the athlete is earning money of and the coach takes a certain percentage due to the fact he is an agent I don't have a problem with that, because that's fine. I would have a problem if i had to sign a contract to a coach because he thought I was going to leave him. I think that for me is one, you don't trust the athlete or you have no faith in what you're doing.

Sara: definitely. At the moment I'm doing this study in England and Portugal, I would love to do this study in more countries to push athletics a little bit more but it is really hard to do it on my own. But yes, at the moment I'm doing in these two countries just to see if I can give voice to the coaches and athletes to say what they want to say, what they think, because as I said everything at the moment is about football so we need more studies in different sports rather than football.

Athlete: yes.

Sara: so thank you very much for your time.

Athlete: that's ok.

Sara: I need to right all the interview by hand, and at the end of my study, because I need to interview more people, at the end of my study if you're happy I will send you a copy.

Athlete: yes, please do.

Sara: ok?

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Athlete: yes.

Sara: thank you very much ... I wish you all the best.

Athlete: thank you very much Sara see you soon.

Sara: Bye

Athlete: Bye.

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PT Coach

Date: 04/01/2011

Time: 19:27pm

Sara: Coach, what does it mean for you a positive relation? Thinking about you and your coach?

Coach: it means to have empathy, to share the same goals, and to believe that we are going to fulfil everything that we worked for.

Sara: how would you describe the nature of your coach-athlete relationship?

Coach: if I think it is positive or not?

Sara: I want you to describe the type of relationship that you guys have.

Coach: how do I define our relationship? Good question... it is a close relationship, with a good environment, the familiar type, is not just an athlete coach relationship, we are together outside of training. He is part of my social life.

Sara: was there any particular reason for you two to decide working together?

Coach: not really. From the moment I have become a coach, taking into account my past, people believed in me and to be honest I never asked to an athlete to train with me, it was always the other way around. He knows my work so therefore, he asked me for my support, my help, and that was it.

Sara: what is the meaning of sport in your life?

Coach: sport is been present in my life since I was a little boy, first in an informal way, with little games and after that I feel that sport was part of my spirit, of my soul, I have become an Olympic games athlete, a couple of years later I was a club manager and now I'm a coach. so sport has been present all my life.

Sara: What does it mean for you to have success in your career?

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Coach: What does it mean for me to have success? For me success is to feel that I have accomplished everything that I want, I'm not talking just about the victories but to understand that the work that I have been developing with my athletes is outstanding and productive.

Sara: hum hum....do you have any goals that you hope to accomplish in your career?

Coach: what do I hope? I would like if possible one day, in a near future to have athletes, in the big competitions, like the Olympic Games, obviously.

Sara: Sure. Do you think about yourselves as a unit?

Coach: I do. I don't know if the athletes think in the same way as I do (laughlin and Laughlin). I believe that they do. By the way one of the questions that I have answered I have said that empathy is the based for a close, so my answer is yes.

Sara: hum. Now thinking about Cristina and your coach-athlete relationship, how well do you know each other?

Coach: well thinking about Cristina... sometimes there is doubts. When I think I know well my athletes, sometimes I get to the conclusion that I don't, when I see some type of behaviours and attitudes, some signs, even just words... but thinking about Cristina... I know that sometimes he gets reluctant in accepting my opinion.

Sara: What do you expect from Cristina?

Coach: I just hope that we always respect each other.

Sara: Do you think your relationship is stronger now, or when you first started?

Coach: in this particular case yes it is, it is stronger now. There was a reinforcement of our work during this time that we've been together. In other cases with other athletes, the relationship is the same since the beginning, and I believe that's my fault because sometimes, I'm not as available as I should be, and that's not good at all.

Sara: hum hum... but regarding Cristina, do you think you can fortify that union a little bit more?

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Coach: I believe so. I think that we can not only improve in terms of training but also in terms of our relationship we can consolidate it and also make it more solid. I have always thought that we were progressing in this direction.

Sara: hum hum.... what do you think is more important, the Interpersonal relationship between you and your coach or accomplishing the goal?

Coach: I, I... the result is important, to reach the goals is important but if I can keep our friendship and the good relationship between me and my athlete... I think that is much more important, and if our friendship can succeed for many years, I think that is much more important than a simple result.

Sara: thinking about your relationship still, how does power influence cohesion?

Coach: what power? From whom?

Sara: from the coach.

Coach: it can influence... sometimes there is doubts, sometimes it is important to impose my ideas in some... I think this has to be with my leadership ability, so in that way I think that yes. the use of "my" power has basic aspects, when the athlete has doubts, when the athlete doesn't believe or when he put in cause is value, or eventually put in cause my work, it is not very positive isn't it?, I think that if this power is handle in the correct way of form, I believe that, yes.

Sara: so the way you apply your power is based on leadership?

Coach: yes, and also on friendship.

Sara: ok.

Coach: I considered this very important to determine our path.

Sara: What are the qualities that you prefer in your athlete?

Coach: honesty, determination and his believe. He believes in his abilities and also in all the work that is done, not only the coach work but also of the club.

Sara: Sure. What's the importance of communication in your relationship?

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Coach: I think we need to have plenty communication, I think that is very important. I think if we are honest with each other, without hiding anything, if we truly believe in each other that can only make the relationship stronger.

Sara: yes. How do you think closeness affect cohesion?

Coach: can you explain better?

Sara: in what ways a close relationship can influence the union between the coach and the athlete?

Coach: oh, I think that affects positively. Obviously there is exceptions, but at least is what I feel, and is what I wish that could happens always.

Sara: do you think is important to have that close relationship with Cristina?

Coach: yes I do. About the other athletes... is more a less... but with Cristina I have a close relationship.

Sara: What do you like more about him?

Coach: what do I like more in him? Is his devotion to athletics?

Sara: Is there anything that you don't like in him?

Coach: yes, sometimes he doesn't believe in his abilities, and he is not very determined in pursuing his goals.

Sara: Do you feel that he supports you?

Coach: that he supports me?

Sara: yes. And if yes, in what ways?

Coach: hum, not always I feel that support, I think that my athletes forget sometimes to show it. Between trainings, competitions and scores, and think there is a bit of egoism from their part. Because I was an athlete for so many years, I know what I'm talking about, I understand both sides. I know sometimes people forget the others because they are the centre of attentions, but I know that is my job to reverse this situation. But regarding Cristina he is always supporting me.

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Sara: hum hum. How do you think commitment affects cohesion?

Coach: it influences a lot, at least on my point a view. When I talk to an athlete I use to say that independently of his ability as an athlete, for me is more important the one that is more committed. An athlete that is commit gets more attention that the one that has a lot of potential but doesn't commit to this sport, to me. My attention and my professionalism goes to the ones that are committed, definitely.

Sara: hum hum... thinking about Cristina, do you think you are both committed to each other?

Coach: ahhhhhhhhh

Sara: or do you think there is more commitment from one of the parts?

Coach: hum... is like this... the devotion levels, if I can say it like this, vary because of some reasons that I have already pointed out before. If the athlete is more dedicated, and if I feel that the athlete is being committed I will respond with the same devotion or even more. But on the other hand if I feel he is not showing any commitment, I will also drop my dedication levels.

Sara: Do you trust in each other?

Coach: I believe. Yes, in this aspect, yes.

Sara: ok. How does complementarity influence cohesion?

Coach: I think it does, a lot. We need to be in same symphony, we need to fell empathy with one another and most of all our goals must be the same if not, it is very hard to do anything.

Sara: who is responsible for defining the roles and responsibilities in your relationship?

Coach: I try to share everything with my athletes that means, just for the simple fact that I'm the leader, it doesn't mean that I'm responsible for everything. But there is another important issue that I care about their familiar and professional life, I care about that a lot. I try to be a little bit more democratic and therefore I try to share every important thing with them, and in this particular case with Cristina, about our season.

Appendix D – Interview Transcripts

Sara: hum hum. How does Cristina interacts with you, and you with Him?

Coach: in what ways does he interact?

Sara: the way he communicates with you, the way he...

Coach: oh...it doesn't talk a lot. I am more communicative, to give him support, to phone him, like, are you ok? Do you need anything? The training tomorrow will be... and so on... many times they compete and I need to ring them to ask if things went well, because they forget to call me. I know there is something wrong and I need to fix it. But, I don't think they do this intentionally, is just the athletes have this selfishness so they forgot... they are very egocentric,

Sara: I understand. Do you think it is important to reward efforts?

Coach: if I think it is important? I think it has to exist always a positive reinforcement in any... ahhhh... in my case the positive reinforcement would be, the athletes obtaining all the goals that we had agreed before.

Sara: What's the importance of feedback in your relationship?

Coach: very, I need to feel from the athlete what I already said, to believe in my work, to believe that, what I am doing is for his own good and to feel that he is well. For example, I don't like when they omit when they are injured, and they don't want to say because there is a very important competition. I don't like if they hide as well familiar problems because I really care about it, you know? These small details will affect the athlete performance. So I don't like when they hide this from me.

Sara: How does compatibility influence cohesion?

Coach: it can influence, if we are not compatible in terms of traces and for example, goals we will soon have a conflict, and usually things like that, don't have a happy ending.

Sara: Clearly. Can you name some of Cristina best qualities?

Coach: he is generous, we are speaking only about Cristina right? well he is kind and he is extremely professional as a person, therefore sometimes he puts in second place is athletic career because of his family. he is the one that supports his family in every

Appendix D – Interview Transcripts

possible way . Because of that I can say that he is not selfish e does everything for his family and that, I consider a great quality.

Sara: that's brilliant. Coach, how would you rate you're overall relationship with Cristina from 1 to 5?

Coach: I think I would give 4.

Sara: Ok. How does co-orientation influence cohesion?

Coach: co-orientation? My co-orientation?

Sara: exactly.

Coach: how does it influence?

Sara: The cohesion, the union.

Coach: well, seeing the positive side of it, it can reinforce the relationship. But if we see the negative side, we will have divergences and so co-orientation can be negative. It looks like, that I am being a little contradictory. hum...

Sara: Do you always share the same things? Does he always follow your instructions?

Coach: not always.

Sara: so this makes our relationship weaker or not? Do you have arguments?

Coach: well to be honest, it is rare to have a disagreement with Cristina. When we talk I never felt there was... you know? That doesn't mean that we always agree on everything, but to reach the point to have a disagreement... so no.

Sara: Sure... What is the essence for you of a successful relationship, thinking about the coach-athlete relationship?

Coach: basically is friendship, beyond the role that each one of us has to play, I think that, to have friendship and empathy between us is the most important thing. And I think this is the base to have success and to make our dreams come true, eventually.

Sara: hum hum. How would you describe the ideal athlete?

Appendix D – Interview Transcripts

Coach: the ideal athlete... well, the ideal athlete beyond the physical capacities he needs to be dummy (laughlin and Laughlin). yes, honestly you can say that I have said that (laughlin and Laughlin). When I say dummy, what I mean is, a person who doesn't think too much. Like training wise, that is, the only person who is allowed to think is the coach and so the athlete does everything like the coach tells him too. When I say donkey is with this meaning.

Sara: I understand what you are saying (laughlin and Laughlin). Do you often talk about sport issues? or just about athletics?

Coach: yes about athletics, we speak a little.

Sara: Do you talk about your athletic future with him?

Coach: we do talk many times, and of the importance of....

Sara: hum hum...

Coach: of his career.

Sara: Do you conduct team meetings during the season? To speak about that and other important subjects?

Coach: meeting in the true sense of the word, no. but during training sessions whenever possible I try to speak to him before the session or later on. Just to see if everything is ok and also to agree on some goals.

Sara: But do you think these conversations are important?

Coach: yes, they are, I think that this is a channel of communication, for example, usually when we arrive to the track before they start training, I do ask how they are, how was their week or if the day went well? If there is any issues? Therefore, to get to know everything that happened in those 2 or 4 days that I haven't been with him.

Sara: clearly.

Coach: and also at the end of the session I always ask how he feels, how they feel. and always try to understand if there is any small problems.

Sara: ok.

Appendix D – Interview Transcripts

Coach: I need to know about everything, about their family, their professional life, their athletics career, this last one is what I care about most...

Sara: so give a lot of social support?

Coach: exactly.

Sara: hum hum.... Do you think cohesion leads to performance or is it the other way around?

Coach: good question. Well, if is cohesion that leads to performance? Hum... I think they are both true isn't it? It is possible to have a small connection with the athlete and this athlete could have an amazing performance, and that performance, that success can lead to cohesion, and the opposite can happen as well. Isn't it? If you feed a coach-athlete relationship throughout the times this can lead to success, therefore I think this is a two ways thing.

Sara: ok. How does motivation influence cohesion?

Coach: well, a lot. It can be both, or just one of us... if one of us is very motivated it will have the capacity to motivate the other. And this could lead into a great cohesion.

Sara: how does Cristina motivates you, to keep coaching him?

Coach: how does he motivates me? With his commitment, the way he trains, with his motivation, with the way he fights for his goals, that keeps me happy and motivated to be by his side all this time.

Sara: sure. What motivates you to stay together? Some major goal?

Coach: on my behalf, it is a major goal, could be or could not be with this athlete but, in the future with others maybe. Maybe this one is part of my learning process. As a coach, one day I hope to be able to have an athlete in one of the most important competitions. But what motivates me really, is the love that I have for athletics and every sport in general, and also because I love to be surrounded by a group of people with a good environment, that is what I like more in the training side aspect, to be in a group, a group very motivated, with joy and happiness.

Sara: ok. how does leadership influence cohesion?

Appendix D – Interview Transcripts

Coach: leadership is essential, because it is important to have some sort of control upon the athletes that we coach, this is a very strong and important aspect.

Sara: How would you define your leadership style?

Coach: well, soft (laughlin and Laughlin), sometimes too soft. I think that I should be more firm, stronger, and sometimes more demanding in some aspects. I think that I'm too soft, but because I think that the relationship is more important, our friendship, that enables me to be more with them. You know? I just think I should be a little bit more severe. To make them feel that this is my work, that I have goals as well, and everything that I do is for their own good.

Sara: How would you describe your behaviour as a coach?

Coach: my behaviour?

Sara: as a coach. Do you think it would be training and instruction, democratic, autocratic, social support or reward?

Coach: democratic and social support. I am not very tuff if you know what I mean, as I said I should be more demanding with them but when...

Sara: but you think that caring for them it is more important?

Coach: exactly, but sometimes they don't understand that, probably they think that I'm too relaxed, but it is not that. Being a coach, is like being a father, or a teacher in school and for me, to be a coach is the same thing. I think that they are all in the same line of education. deep inside I know that I need to keep a leadership figure, the coach figure, you know? But many times I am misunderstood, they don't understand the message or the difference between the relationship that we have in the sessions and outside of trainings.

Sara: hum hum would you like to say anything else, something that is relevant?

Coach: About Cristina? He is the kind one.

Sara: the kind one. I give for finished the interview, thank you very much for your time.

Coach: it was my pleasure.

Appendix E – Ethics Clearance

Ethics Clearance



Miss Sara Almeida
School of Education
University of Southampton
University Road
Highfield
Southampton
SO17 1BJ

RGO Ref: 7672

23 November 2010

Dear Miss Almeida

Project Title What Makes up Cohesion in the Coach Athlete Relationship?

This is to confirm the University of Southampton is prepared to act as Research Sponsor for this study, and the work detailed in the protocol/study outline will be covered by the University of Southampton insurance programme.

As the sponsor's representative for the University this office is tasked with:

1. Ensuring the researcher has obtained the necessary approvals for the study
2. Monitoring the conduct of the study
3. Registering and resolving any complaints arising from the study

As the researcher you are responsible for the conduct of the study and you are expected to:

1. Ensure the study is conducted as described in the protocol/study outline approved by this office
2. Advise this office of any change to the protocol, methodology, study documents, research team, participant numbers or start/end date of the study
3. Report to this office as soon as possible any concern, complaint or adverse event arising from the study

Failure to do any of the above may invalidate the insurance agreement and/or affect sponsorship of your study i.e. suspension or even withdrawal.

On receipt of this letter you may commence your research but please be aware other approvals may be required by the host organisation if your research takes place outside the University. It is your responsibility to check with the host organisation and obtain the appropriate approvals before recruitment is underway in that location.

May I take this opportunity to wish you every success for your research.

Yours sincerely

A handwritten signature in black ink, appearing to read "M. Prude".

Dr Martina Prude
Head of Research Governance

Tel: 023 8059 5058
email: rgoinfo@soton.ac.uk

Appendix F – Questionnaire

UNIVERSITY OF SOUTHAMPTON

“WHAT MAKES UP THE COACH-ATHLETE RELATIONSHIP?”

This questionnaire is part of the study "What makes up the Coach-athlete relationship?". Please read carefully the statements below and **circle the answer** that indicates what you think. There are no right or wrong answers. If you agree to take part in this study, we can guarantee that all your answers will be completely confidential.

We would like to thank you for your cooperation.

1. Identification:

1.1 Age: _____ 1.2 Gender: Male ☐ Female ☐

1.3 Sport: _____ Years of practice Years of practice with the current coach

2. Please respond to the statements as honest as possible and relevant to **HOW YOU PERSONALLY FEEL** about your relationship **WITH YOUR COACH**. Each answer as 5 options, please answered by marking with a cross. There is no right or wrong answers.

1	2	3	4	5
Strongly Agree	Agree	Neither	Disagree	Strongly Disagree

My Coach:

		1	2	3	4	5
1	I trust my coach	1	2	3	4	5
2	Cultural differences are a barrier in my relationship with my coach	1	2	3	4	5
3	I am close to my coach	1	2	3	4	5
4	When I am coached by my coach I always work to the max	1	2	3	4	5
5	My communication with my coach is excellent	1	2	3	4	5
6	My coach it is not easy to talk to	1	2	3	4	5
7	We work as a team	1	2	3	4	5
8	Distance is a barrier in my relationship with my coach	1	2	3	4	5

Appendix F – Questionnaire

9	I discuss everything before hand with my coach	1	2	3	4	5
10	My coach made me sign a contract	1	2	3	4	5
11	I have difficulties in expressing my feelings with my coach	1	2	3	4	5
12	When I am coached by my coached I am at ease	1	2	3	4	5
13	When I am coached by my coached I am ready to do my best	1	2	3	4	5
14	I like my coach	1	2	3	4	5
15	I have different goals than my coach	1	2	3	4	5
16	We talk about our future in athletics	1	2	3	4	5
17	I am committed to my coach	1	2	3	4	5
18	My coach listens to what I have to say	1	2	3	4	5
19	My coach and I, we have distinct personalities	1	2	3	4	5
20	I think my sport career is promising with my coach	1	2	3	4	5
21	Sometimes my coach puts a lot of pressure on me	1	2	3	4	5
22	My coach is always available for me	1	2	3	4	5
23	We have different opinions, but we share the same goals	1	2	3	4	5
24	I share the same beliefs as my coach	1	2	3	4	5
25	We motivate each other all the time	1	2	3	4	5
26	My coach takes into account my needs	1	2	3	4	5
27	My coach influences my decisions	1	2	3	4	5
28	My coach makes me false promises	1	2	3	4	5
29	My time for trainings is limited	1	2	3	4	5
30	I believe it is important to have a personality match between the coach and the athlete	1	2	3	4	5
31	I am 100%% committed to my coach	1	2	3	4	5
32	I consider my coach as family	1	2	3	4	5
33	When I am coached by my coached I am responsive for his/her efforts	1	2	3	4	5
34	I love my coaches' excitement towards training	1	2	3	4	5
35	My coach interacts with me all the time	1	2	3	4	5
36	My coach makes me feel special	1	2	3	4	5
37	My relationship with my coach is more important than achieving the goal	1	2	3	4	5
38	I understand my coach	1	2	3	4	5
39	My coach understands me	1	2	3	4	5
40	My coach lets me set my own goals	1	2	3	4	5
41	I know my coach' strong points	1	2	3	4	5
42	My coach and I are always very focused	1	2	3	4	5

Appendix F – Questionnaire

43	My coach inspires me	1	2	3	4	5
44	My coach gives me sport specific support as well as personal support	1	2	3	4	5
45	We both want to succeed	1	2	3	4	5
46	I want to gain social recognition	1	2	3	4	5
47	I know my coach' weak points	1	2	3	4	5
48	My coach provides a safe environment for his athletes	1	2	3	4	5
49	I Agree with my coaches' views	1	2	3	4	5
50	My coach punish his athletes	1	2	3	4	5
51	I strive to achieve similar goals with my coach	1	2	3	4	5
52	I do personal sacrifices to achieve my goal	1	2	3	4	5
53	I see my coach as a leader	1	2	3	4	5
54	We share the same passion for athletics	1	2	3	4	5
55	I always do my best in every session	1	2	3	4	5
56	I am self-motivated	1	2	3	4	5
57	I recognize my coach's authority	1	2	3	4	5
58	My coach keeps my motivation high	1	2	3	4	5
59	I am capable of doing anything to achieve my goals	1	2	3	4	5
60	My coach plans everything in advance	1	2	3	4	5
61	I have something to prove to others than my coach	1	2	3	4	5
62	My coach gives me a lot a feedbacks during training	1	2	3	4	5
63	My coach refuses any kind of commitment	1	2	3	4	5
64	My motivation comes from my results	1	2	3	4	5

Cohesion	2, 7, 8, 15, 21, 28, 29, 37
Closeness	1, 3, 11, 14, 32, 36, 44, 48
Power	9, 10, 18, 27, 40, 50, 53, 57
Complementarity	4, 12, 13, 16, 33, 42, 54, 60
Commitment	17, 20, 22, 31, 52, 55, 59, 63
Compatibility	6, 19, 23, 24, 26, 30, 35, 62
Co-orientation	5, 34, 38, 39, 41, 47, 49, 51
Motivation	25, 43, 45, 46, 56, 58, 61, 64

Appendix G – Reliability of the 8 Scales

Reliability of the 8 scales

Cohesion

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.760	.751	7

Closeness

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.955	.956	8

Power

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.911	.912	6

Complementarity

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.955	.954	8

Commitment

Appendix G – Reliability of the 8 Scales

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.921	.920	6

Compatibility

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.897	8

Co-orientation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.956	.955	8

Motivation

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.905	.905	7

Appendix H – Descriptive Statistics

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
I trust my Coach/Athlete	86	1	5	3.17	1.668	-.096	.260	-1.728	.514
Cultural differences are a barrier in my relationship with my Coach/Athlete	86	1	5	3.02	1.694	-.022	.260	-1.723	.514
I am close to my Coach/Athlete	86	1	5	3.16	1.379	-.107	.260	-1.360	.514
When I am coached by my Coach/coaching my Athlete I always work to the max	86	1	5	3.10	1.495	-.161	.260	-1.490	.514
My Communication with my Coach/Athlete is excellent	86	1	5	3.17	1.489	-.153	.260	-1.490	.514
My Coach/Athlete is not easy to talk too	86	1	5	3.05	1.593	-.042	.260	-1.605	.514
We work as a team	86	1	5	3.03	1.499	.025	.260	-1.495	.514
Distance is a barrier in my relationship with my Coach/Athlete	85	1	5	2.68	1.457	.503	.261	-1.171	.517
I discuss everything before hand with my Coach/Athlete	85	1	5	3.13	1.280	-.248	.261	-1.036	.517
My Coach made me sign a contract/My athlete had to sign a contract	86	1	5	3.10	1.729	-.053	.260	-1.741	.514

Appendix H – Descriptive Statistics

I have difficulties in expressing my feelings with my Coach/Athlete	86	1	5	2.97	1.451	.133	.260	-1.323	.514
When I am coached by my Coach/Coaching my Athlete I am at ease	86	1	5	3.23	1.516	-.198	.260	-1.508	.514
When I am coached by my Coach/coaching my Athlete I am ready to do my best	86	1	5	3.10	1.631	-.072	.260	-1.683	.514
I like my Coach/Athlete	86	1	5	3.13	1.658	-.066	.260	-1.710	.514
I have different goals than my Coach/Athlete	86	1	5	3.06	1.450	-.103	.260	-1.425	.514
We talk about our sport future	85	1	5	2.99	1.358	.138	.261	-1.262	.517
I am committed to my Coach/Athlete	86	1	5	3.13	1.462	-.065	.260	-1.466	.514
My Coach/Athlete listens to what I have to say	85	1	5	3.24	1.493	-.129	.261	-1.550	.517
My Coach/Athlete and I, we have distinct personalities	86	1	5	3.07	1.281	.107	.260	-1.205	.514
I think my sport career is promising with my Coach/Athlete	86	1	5	3.16	1.300	-.014	.260	-1.233	.514
My Coach/Athlete puts a lot of pressure on me	85	1	5	2.86	1.441	.106	.261	-1.323	.517
My Coach/Athlete is always available for me	84	1	5	3.17	1.334	-.188	.263	-1.223	.520

Appendix H – Descriptive Statistics

There are specific things about my personality and my Coach's/Athlete's personality that create the perfect relationship	84	1	5	3.11	1.076	-.039	.263	-.479	.520
I share the same beliefs as my Coach/Athlete	84	1	5	2.92	1.143	.266	.263	-.780	.520
We motivate each other all the time	84	1	5	3.08	1.273	-.016	.263	-1.165	.520
My Coach/Athlete takes into account my needs	83	1	5	3.18	1.433	-.097	.264	-1.398	.523
My Coach/Athlete influences my decisions	83	1	5	3.02	1.297	.092	.264	-1.147	.523
My Coach/Athlete makes me false promises	83	1	5	3.31	1.645	-.216	.264	-1.688	.523
My time for trainings is limited	83	1	5	2.98	1.388	.072	.264	-1.320	.523
I believe it's important to have a personality match between the Coach and the athlete	83	1	5	3.04	1.427	-.039	.264	-1.406	.523
I am 100% committed to my Coach/Athlete	83	1	5	3.19	1.435	-.069	.264	-1.435	.523
I consider my Coach/Athlete as family	83	1	5	3.36	1.340	-.320	.264	-1.116	.523
When I am coached by my Coach/coaching my Athlete I am	83	1	5	3.18	1.523	-.080	.264	-1.554	.523

Appendix H – Descriptive Statistics

responsive for his/her efforts									
I love my Coaches'/Athlete ' excitement towards training	83	1	5	2.95	1.447	.210	.264	-1.393	.523
My Coach/Athlete interacts with me all the time	83	1	5	3.02	1.361	.074	.264	-1.256	.523
My Coach/Athlete makes me feel special	83	1	5	3.19	1.320	-.007	.264	-1.113	.523
My relationship with my Coach/Athlete is more important than achieving the goal	83	1	5	3.37	1.155	-.291	.264	-.567	.523
I understand my Coach/Athlete	83	1	5	3.13	1.463	.004	.264	-1.493	.523
My Coach/Athlete understands me	82	1	5	3.10	1.428	.059	.266	-1.442	.526
My Coach/Athlete lets me set my/his goals	83	1	5	3.24	1.349	-.148	.264	-1.362	.523
I know my Coach'/Athlete' strong points	82	1	5	3.11	1.352	-.050	.266	-1.352	.526
My Coach/Athlete and I are always very focused	81	1	5	3.04	1.355	.086	.267	-1.344	.529
My Coach/Athlete inspires me	82	1	5	3.01	1.410	-.022	.266	-1.361	.526
My Coach/Athlete gives me personal support	82	1	5	3.12	1.346	-.134	.266	-1.205	.526
We both want to succeed	82	1	5	2.96	1.696	.090	.266	-1.731	.526

Appendix H – Descriptive Statistics

I want to gain social recognition	82	1	5	3.40	1.387	-.192	.266	-1.357	.526
I know my Coach's/Athlete's weak points	82	1	5	3.26	1.341	-.264	.266	-1.087	.526
My Coach provides a safe environment for his athletes/I provide a safe environment for my Athlete	82	1	5	3.10	1.599	-.015	.266	-1.640	.526
I agree with my Coach's/Athlete's views	81	1	5	3.05	1.182	-.051	.267	-.938	.529
My Coach punishes his athletes/I punish my Athletes	82	1	5	2.87	1.505	.234	.266	-1.418	.526
I strive to achieve similar goals with my Coach/Athlete	82	1	5	2.83	1.245	.293	.266	-1.099	.526
I do personal sacrifices to achieve my goal	82	1	5	3.05	1.396	.051	.266	-1.357	.526
I see my Coach/Athlete as a leader	82	1	5	3.11	1.379	-.057	.266	-1.287	.526
We share the same passion regarding sports	81	1	5	3.19	1.534	-.086	.267	-1.563	.529
I always do my best in every session	82	1	5	3.05	1.465	-.014	.266	-1.474	.526
I am self-motivated	82	1	5	2.80	1.452	.201	.266	-1.379	.526
I recognize my Coach's authority/Athlete s recognize my authority	80	1	5	2.99	1.514	.022	.269	-1.522	.532
My Coach/Athlete keeps my motivation high	82	1	5	3.12	1.426	.016	.266	-1.439	.526

Appendix H – Descriptive Statistics

I am capable of doing anything to achieve my goals	81	1	5	3.09	1.389	.043	.267	-1.333	.529
My Coach plans everything in advance/I plan everything in advance	82	1	5	2.95	1.506	.107	.266	-1.485	.526
I have more to prove to others than my Coach/Athlete	82	1	5	2.98	1.431	.018	.266	-1.335	.526
My Coach/Athlete gives me a lot of feedback during training	82	1	5	2.95	1.482	.086	.266	-1.426	.526
My Coach/Athlete refuses any kind of commitment	82	1	5	2.83	1.464	.183	.266	-1.319	.526
My motivation comes from my results	82	1	5	3.46	1.363	-.416	.266	-1.152	.526
Valid N (listwise)	71								

Appendix I – Strenght of the Relationship among the 57 items

215

Appendix J – KMO and Bartlett's test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	397.442
	df	28
	Sig.	.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.867
Bartlett's Test of Sphericity	Approx. Chi-Square	419.700
	df	28
	Sig.	.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	753.409
	df	28
	Sig.	.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.939
Bartlett's Test of Sphericity	Approx. Chi-Square	670.756
	df	28
	Sig.	.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	396.452
	df	28
	Sig.	.000

Appendix J – KMO and Bartlett's test

KMO and Bartlett's Test

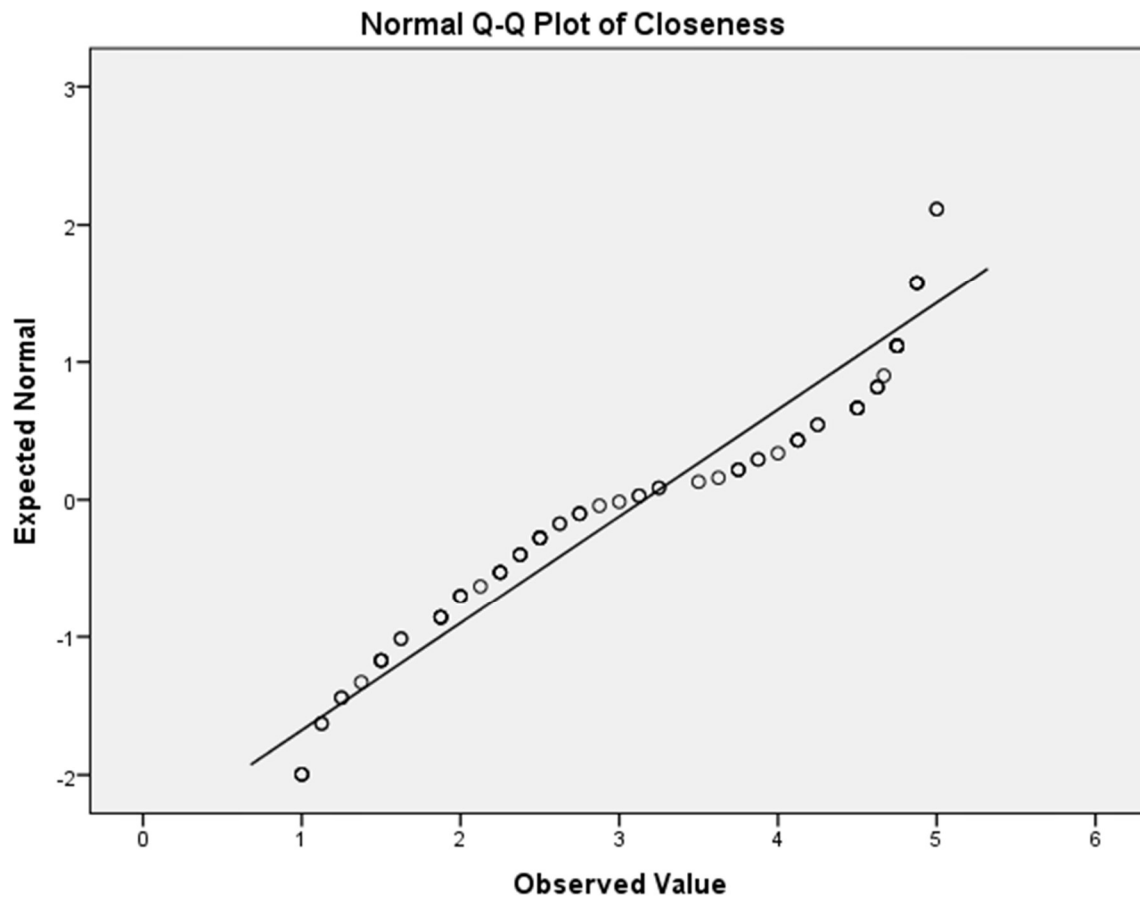
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.847
Bartlett's Test of Sphericity	Approx. Chi-Square	464.403
	df	28
	Sig.	.000

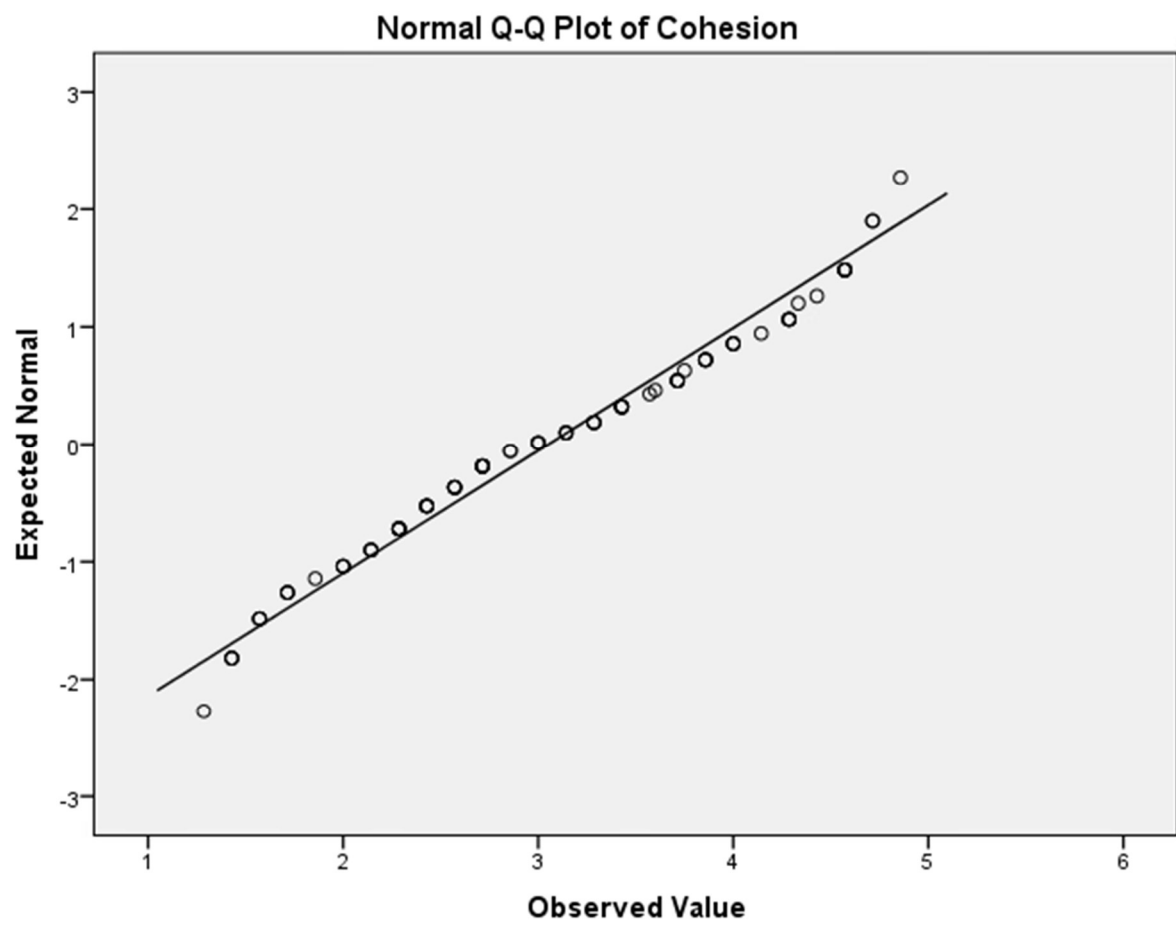
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.705
Bartlett's Test of Sphericity	Approx. Chi-Square	207.544
	df	28
	Sig.	.000

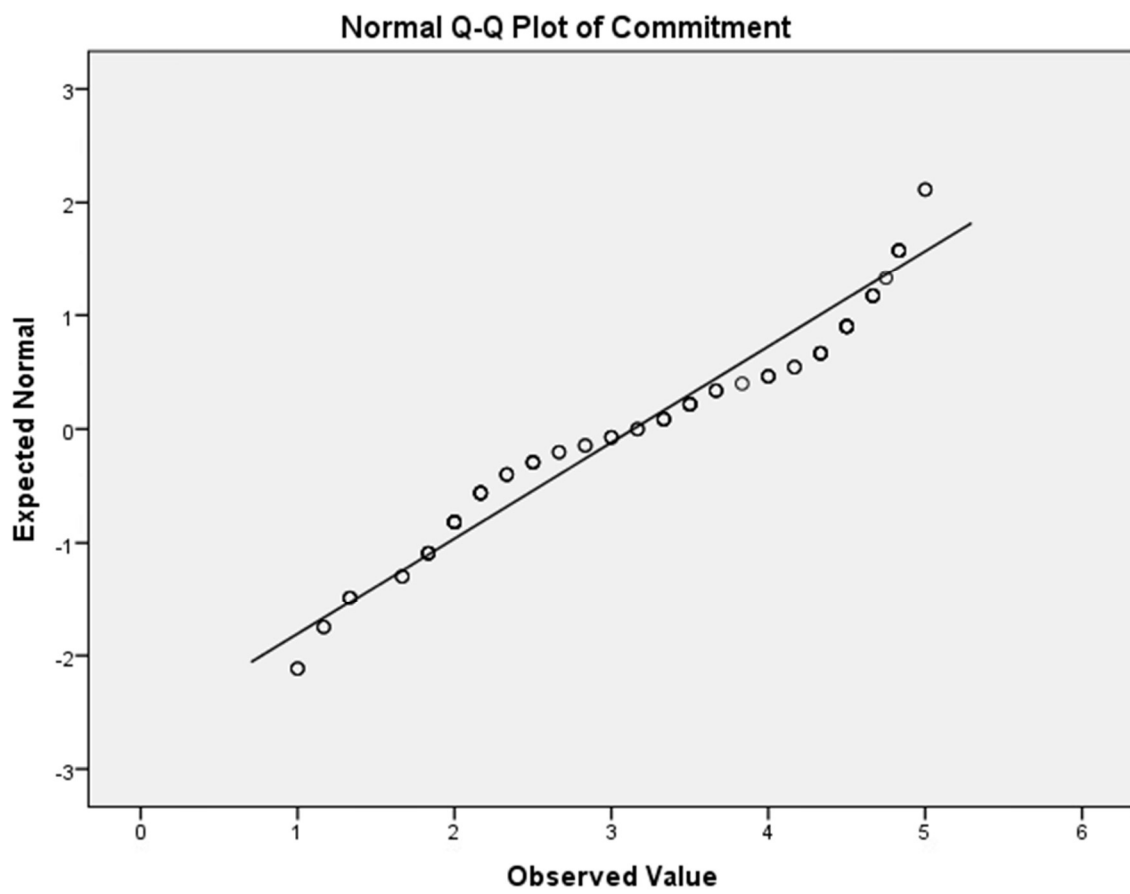
Appendix K – Normality of the 8 Scales

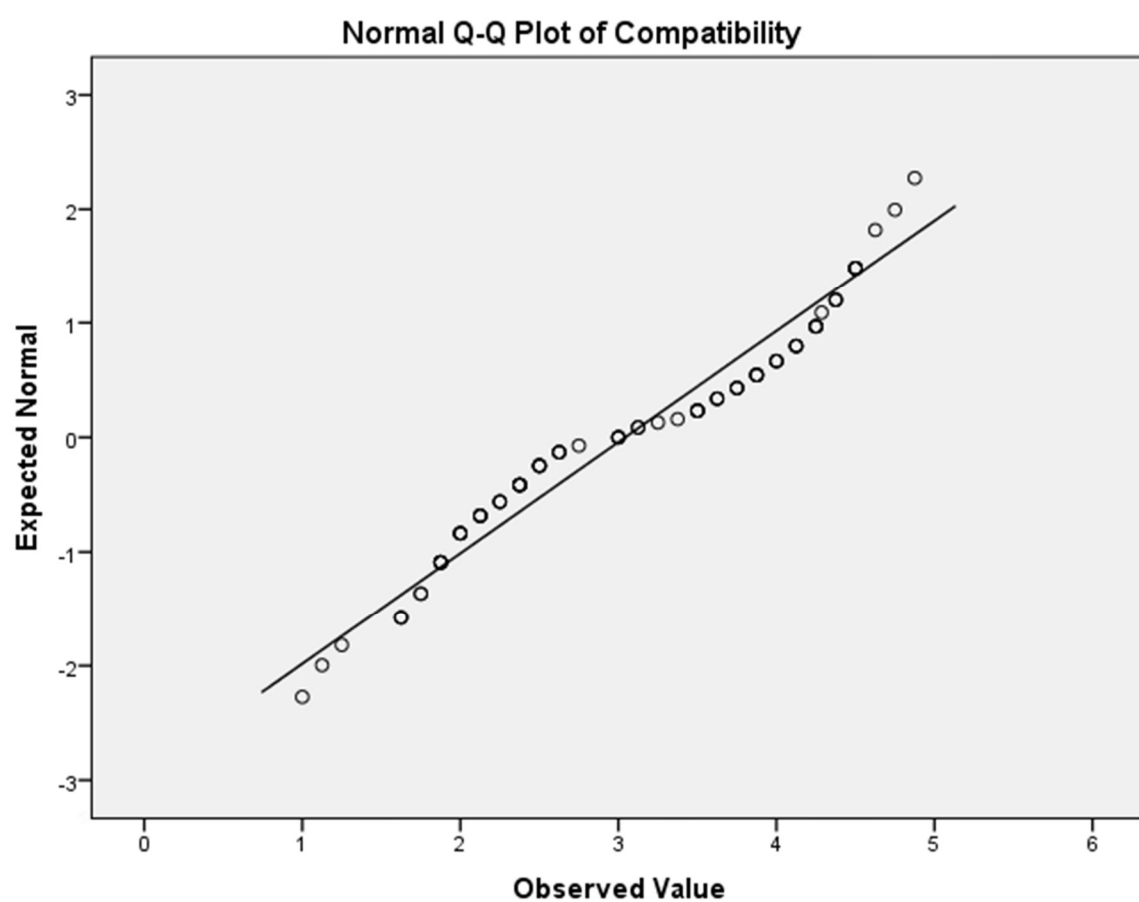
Normality 8 scales

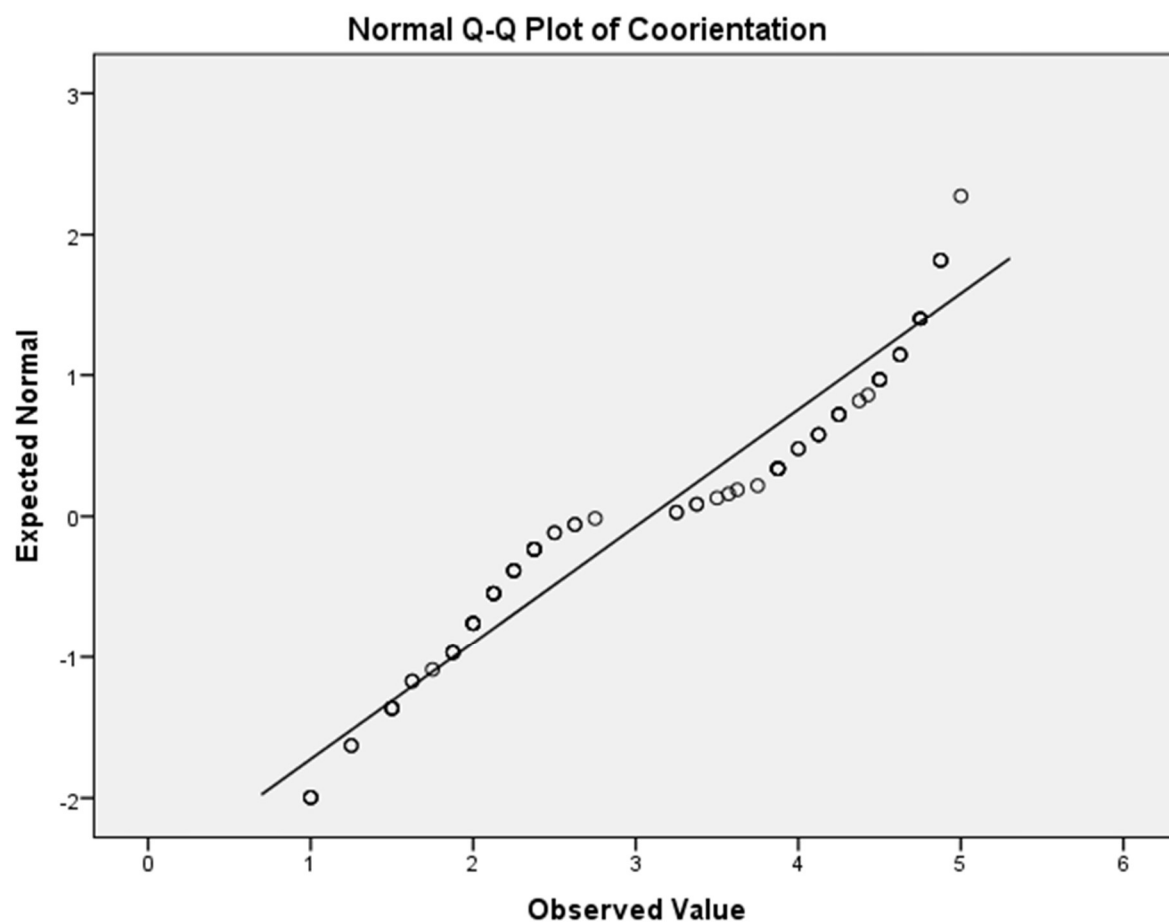




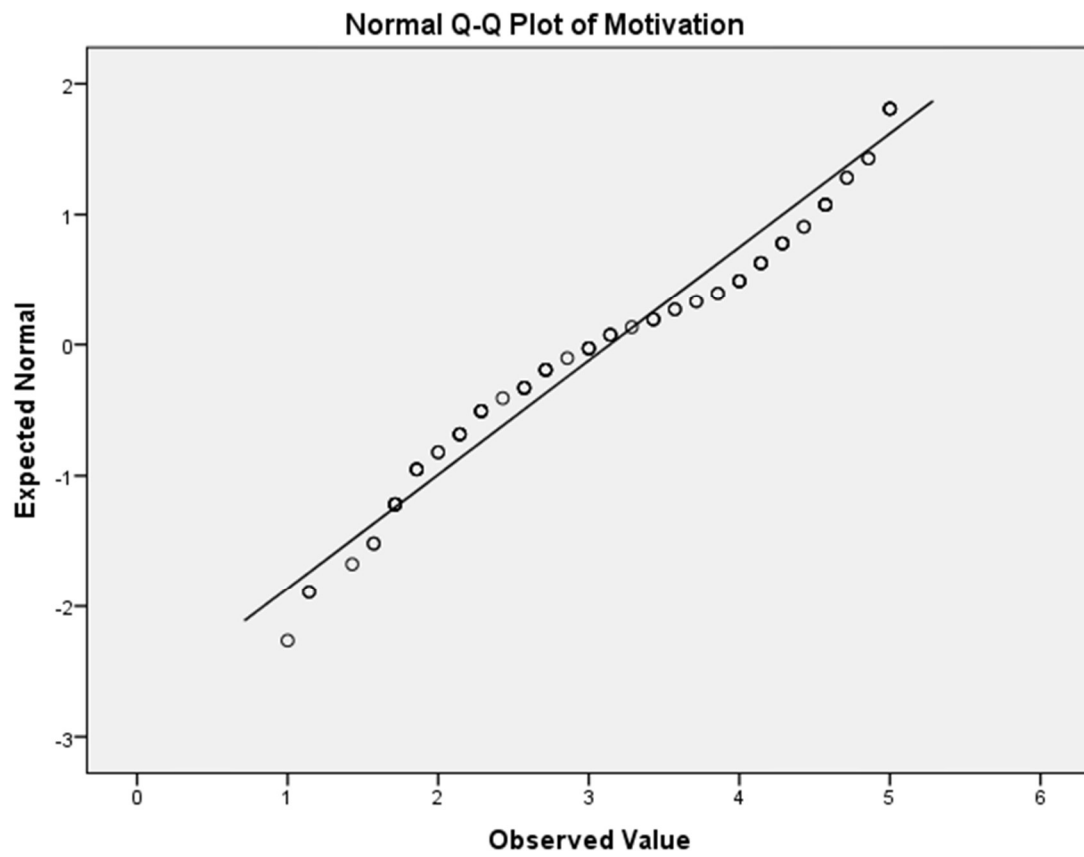
Appendix K – Normality of the 8 Scales

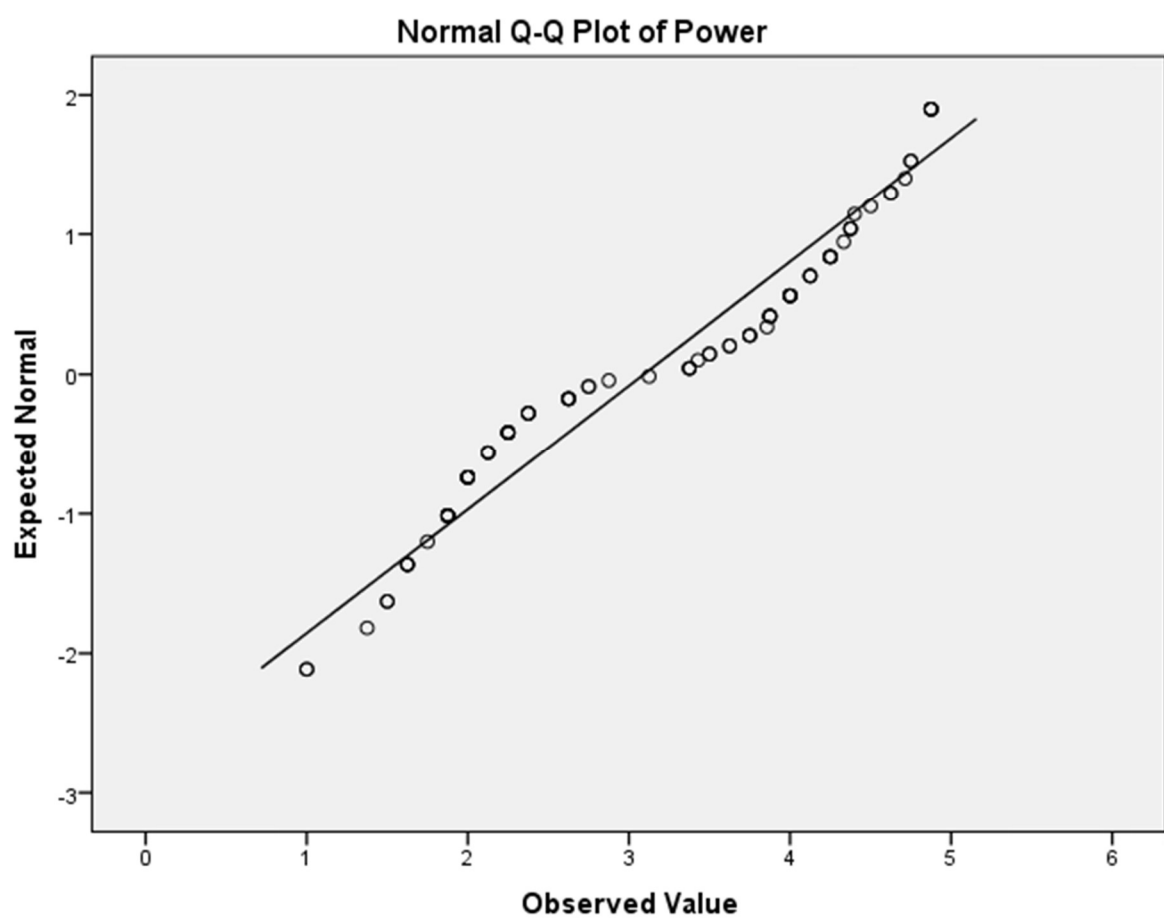


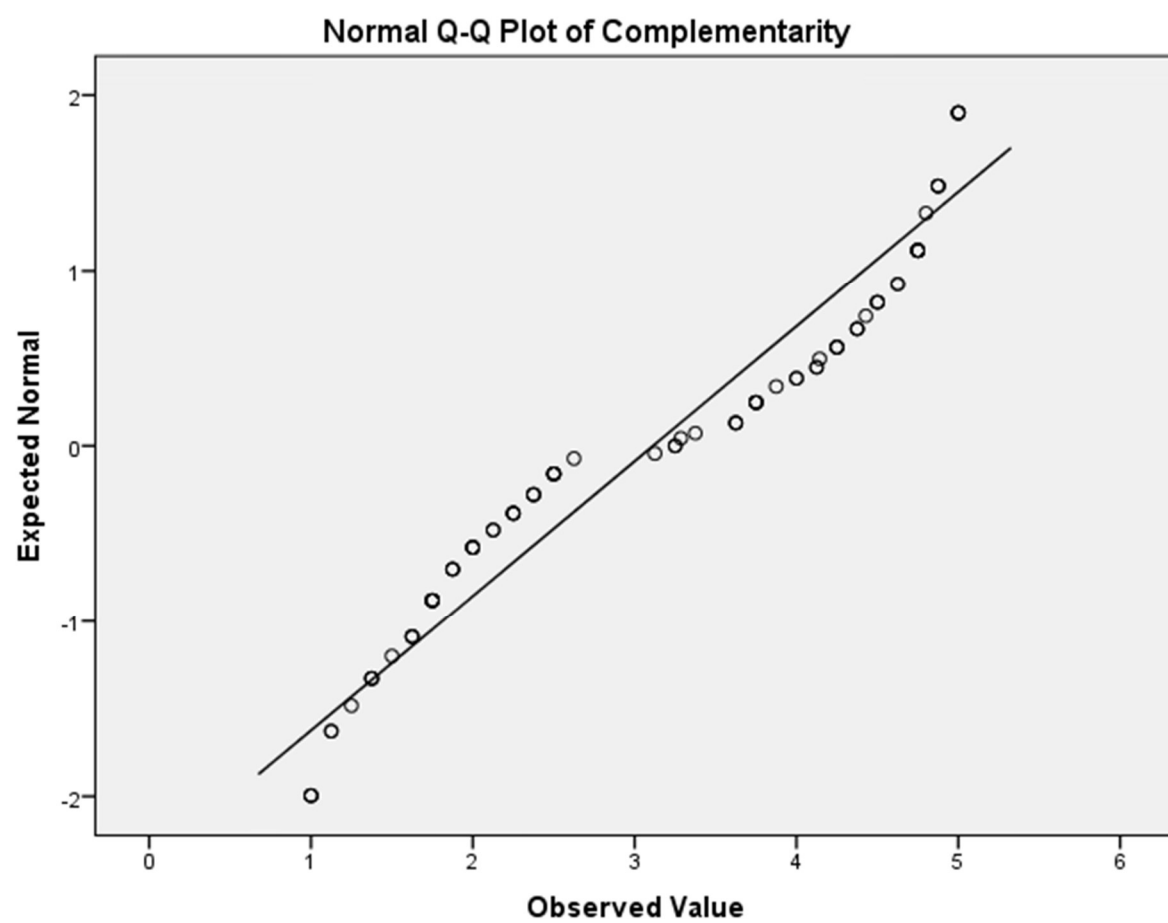




Appendix K – Normality of the 8 Scales







Appendix L – MANOVA between the 8 Scales and Gender

Between-Subjects Factors			
		Value Label	N
Gender	0	Female	43
	1	Male	35

Descriptive Statistics					
Gender		Mean	Std. Deviation	N	
Cohesion	Female	2.8439	0.86718	43	
	Male	3.1633	0.95401	35	
	Total	2.9872	0.91522	78	
Commitment	Female	2.9535	1.14048	43	
	Male	3.1714	1.23437	35	
	Total	3.0513	1.18075	78	
Complementarity	Female	2.8779	1.30660	43	
	Male	3.1745	1.25682	35	
	Total	3.0110	1.28481	78	
Motivation	Female	3.0266	1.16736	43	
	Male	3.1224	1.14030	35	
	Total	3.0696	1.14881	78	
Closeness	Female	2.9506	1.29247	43	
	Male	3.2214	1.28305	35	
	Total	3.0721	1.28704	78	
Compatibility	Female	2.9099	1.02510	43	
	Male	3.0607	1.02916	35	
	Total	2.9776	1.02302	78	
Coorientation	Female	2.9169	1.20355	43	
	Male	3.1163	1.16958	35	
	Total	3.0064	1.18494	78	
Power	Female	2.9264	1.21895	43	
	Male	3.2286	1.21945	35	
	Total	3.0620	1.22065	78	

Appendix L – MANOVA between the 8 Scales and Gender

Box's Test of Equality of Covariance Matrices^a	
Box's M	34.853
F	0.858
df1	36
df2	17793.153
Sig.	0.711

Multivariate Tests^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.949	161.345 ^b	8.000	69.000	0.000	0.949
	Wilks' Lambda	0.051	161.345 ^b	8.000	69.000	0.000	0.949
	Hotelling's Trace	18.707	161.345 ^b	8.000	69.000	0.000	0.949
	Roy's Largest Root	18.707	161.345 ^b	8.000	69.000	0.000	0.949
Gender	Pillai's Trace	0.076	.710 ^b	8.000	69.000	0.682	0.076
	Wilks' Lambda	0.924	.710 ^b	8.000	69.000	0.682	0.076
	Hotelling's Trace	0.082	.710 ^b	8.000	69.000	0.682	0.076
	Roy's Largest Root	0.082	.710 ^b	8.000	69.000	0.682	0.076

Levene's Test of Equality of Error Variances^a				
	F	df1	df2	Sig.
Cohesion	0.638	1	76	0.427
Commitment	1.003	1	76	0.320
Complementarity	0.308	1	76	0.580
Motivation	0.002	1	76	0.961
Closeness	0.012	1	76	0.913
Compatibility	0.001	1	76	0.971
Coorientation	0.000	1	76	0.990
Power	0.058	1	76	0.810

Appendix L – MANOVA between the 8 Scales and Gender

Tests of Between-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Cohesion	1.969 ^a	1	1.969	2.393	0.126	0.031
	Commitment	.916 ^b	1	0.916	0.654	0.421	0.009
	Complementarity	1.697 ^c	1	1.697	1.029	0.314	0.013
	Motivation	.177 ^d	1	0.177	0.133	0.716	0.002
	Closeness	1.415 ^e	1	1.415	0.853	0.359	0.011
	Compatibility	.439 ^f	1	0.439	0.416	0.521	0.005
	Coorientation	.767 ^g	1	0.767	0.543	0.463	0.007
	Power	1.762 ^h	1	1.762	1.186	0.280	0.015
Intercept	Cohesion	696.265	1	696.265	846.267	0.000	0.918
	Commitment	723.840	1	723.840	516.863	0.000	0.872
	Complementarity	706.800	1	706.800	428.331	0.000	0.849
	Motivation	729.549	1	729.549	546.561	0.000	0.878
	Closeness	735.013	1	735.013	442.877	0.000	0.854
	Compatibility	687.824	1	687.824	652.236	0.000	0.896
	Coorientation	702.340	1	702.340	497.245	0.000	0.867
	Power	730.950	1	730.950	491.761	0.000	0.866
Gender	Cohesion	1.969	1	1.969	2.393	0.126	0.031
	Commitment	0.916	1	0.916	0.654	0.421	0.009
	Complementarity	1.697	1	1.697	1.029	0.314	0.013
	Motivation	0.177	1	0.177	0.133	0.716	0.002
	Closeness	1.415	1	1.415	0.853	0.359	0.011
	Compatibility	0.439	1	0.439	0.416	0.521	0.005
	Coorientation	0.767	1	0.767	0.543	0.463	0.007
	Power	1.762	1	1.762	1.186	0.280	0.015
Error	Cohesion	62.529	76	0.823			
	Commitment	106.434	76	1.400			
	Complementarity	125.409	76	1.650			
	Motivation	101.445	76	1.335			
	Closeness	126.132	76	1.660			
	Compatibility	80.147	76	1.055			
	Coorientation	107.347	76	1.412			
	Power	112.966	76	1.486			
Total	Cohesion	760.510	78				
	Commitment	833.556	78				
	Complementarity	834.259	78				
	Motivation	836.571	78				
	Closeness	863.703	78				
	Compatibility	772.125	78				
	Coorientation	813.117	78				
	Power	846.028	78				
Corrected Total	Cohesion	64.497	77				
	Commitment	107.350	77				
	Complementarity	127.107	77				
	Motivation	101.622	77				
	Closeness	127.547	77				
	Compatibility	80.586	77				
	Coorientation	108.114	77				
	Power	114.728	77				

Appendix M – MANOVA between the 8 Scales and Age Group

Between-Subjects Factors			
		Value Label	N
age (grouped)	1	25 or less	46
	2	26-35	22
	3	36-45	5
	4	46-55	3
	5	56 or above	2

Appendix M – MANOVA between the 8 Scales and Age Group

Descriptive Statistics				
age (grouped)		Mean	Std. Deviation	N
Cohesion	25 or less	3.1180	0.91166	46
	26-35	2.6623	0.90838	22
	36-45	3.2000	0.90689	5
	46-55	2.9524	0.97241	3
	56 or above	3.0714	1.11117	2
	Total	2.9872	0.91522	78
Commitment	25 or less	3.1159	1.13468	46
	26-35	2.6970	1.16569	22
	36-45	3.5667	1.32077	5
	46-55	3.5000	1.58990	3
	56 or above	3.5000	1.88562	2
	Total	3.0513	1.18075	78
Complementarity	25 or less	3.0943	1.23949	46
	26-35	2.5966	1.27413	22
	36-45	3.5036	1.35992	5
	46-55	3.5417	1.70171	3
	56 or above	3.6250	1.94454	2
	Total	3.0110	1.28481	78
Motivation	25 or less	3.1522	1.08480	46
	26-35	2.6364	1.06789	22
	36-45	3.5143	1.36127	5
	46-55	3.6667	1.95006	3
	56 or above	3.9286	1.31320	2
	Total	3.0696	1.14881	78
Closeness	25 or less	3.2038	1.22909	46
	26-35	2.5341	1.29283	22
	36-45	3.5250	1.21642	5
	46-55	3.8750	1.41973	3
	56 or above	3.6250	1.94454	2
	Total	3.0721	1.28704	78
Compatibility	25 or less	3.0924	0.98440	46
	26-35	2.6080	1.01132	22
	36-45	3.3750	1.04955	5
	46-55	3.4167	1.56292	3
	56 or above	2.7500	1.06066	2
	Total	2.9776	1.02302	78
Coorientation	25 or less	3.1033	1.14111	46
	26-35	2.5568	1.10715	22
	36-45	3.6750	1.27046	5
	46-55	3.3333	1.70630	3
	56 or above	3.5625	1.85616	2
	Total	3.0064	1.18494	78
Power	25 or less	3.1196	1.22609	46
	26-35	2.7197	1.13900	22
	36-45	3.6000	1.28344	5
	46-55	3.3889	1.49381	3
	56 or above	3.6667	1.88562	2
	Total	3.0620	1.22065	78

Appendix M – MANOVA between the 8 Scales and Age Group

Box's Test of Equality of Covariance Matrices^a	
Box's M	35.125
F	0.821
df1	36
df2	6178.018
Sig.	0.767

Multivariate Tests^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.846	45.442 ^b	8.000	66.000	0.000	0.846
	Wilks' Lambda	0.154	45.442 ^b	8.000	66.000	0.000	0.846
	Hotelling's Trace	5.508	45.442 ^b	8.000	66.000	0.000	0.846
	Roy's Largest Root	5.508	45.442 ^b	8.000	66.000	0.000	0.846
age_grp	Pillai's Trace	0.468	1.143	32.000	276.000	0.279	0.117
	Wilks' Lambda	0.602	1.129	32.000	244.991	0.297	0.119
	Hotelling's Trace	0.552	1.112	32.000	258.000	0.317	0.121
	Roy's Largest Root	0.249	2.149 ^c	8.000	69.000	0.042	0.199

Levene's Test of Equality of Error Variances^a				
	F	df1	df2	Sig.
Cohesion	0.078	4	73	0.989
Commitment	0.299	4	73	0.878
Complementarity	0.196	4	73	0.940
Motivation	0.983	4	73	0.422
Closeness	0.156	4	73	0.960
Compatibility	0.518	4	73	0.722
Coorientation	0.615	4	73	0.653
Power	0.495	4	73	0.740

Appendix M – MANOVA between the 8 Scales and Age Group

Tests of Between-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Cohesion	3.353 ^a	4	0.838	1.001	0.413	0.052
	Commitment	5.289 ^b	4	1.322	0.946	0.443	0.049
	Complementarity	6.910 ^c	4	1.727	1.049	0.388	0.054
	Motivation	7.977 ^d	4	1.994	1.555	0.196	0.078
	Closeness	10.737 ^e	4	2.684	1.677	0.164	0.084
	Compatibility	5.084 ^f	4	1.271	1.229	0.306	0.063
	Coorientation	8.053 ^g	4	2.013	1.469	0.221	0.074
	Power	5.229 ^h	4	1.307	0.872	0.485	0.046
Intercept	Cohesion	204.561	1	204.561	244.225	0.000	0.770
	Commitment	243.784	1	243.784	174.368	0.000	0.705
	Complementarity	243.236	1	243.236	147.726	0.000	0.669
	Motivation	259.462	1	259.462	202.260	0.000	0.735
	Closeness	255.327	1	255.327	159.565	0.000	0.686
	Compatibility	211.098	1	211.098	204.103	0.000	0.737
	Coorientation	239.379	1	239.379	174.639	0.000	0.705
	Power	247.226	1	247.226	164.819	0.000	0.693
age_grp	Cohesion	3.353	4	0.838	1.001	0.413	0.052
	Commitment	5.289	4	1.322	0.946	0.443	0.049
	Complementarity	6.910	4	1.727	1.049	0.388	0.054
	Motivation	7.977	4	1.994	1.555	0.196	0.078
	Closeness	10.737	4	2.684	1.677	0.164	0.084
	Compatibility	5.084	4	1.271	1.229	0.306	0.063
	Coorientation	8.053	4	2.013	1.469	0.221	0.074
	Power	5.229	4	1.307	0.872	0.485	0.046
Error	Cohesion	61.144	73	0.838			
	Commitment	102.061	73	1.398			
	Complementarity	120.197	73	1.647			
	Motivation	93.645	73	1.283			
	Closeness	116.811	73	1.600			
	Compatibility	75.502	73	1.034			
	Coorientation	100.062	73	1.371			
	Power	109.499	73	1.500			
Total	Cohesion	760.510	78				
	Commitment	833.556	78				
	Complementarity	834.259	78				
	Motivation	836.571	78				
	Closeness	863.703	78				
	Compatibility	772.125	78				
	Coorientation	813.117	78				
	Power	846.028	78				
Corrected Total	Cohesion	64.497	77				
	Commitment	107.350	77				
	Complementarity	127.107	77				
	Motivation	101.622	77				
	Closeness	127.547	77				
	Compatibility	80.586	77				
	Coorientation	108.114	77				
	Power	114.728	77				

Appendix N – MANOVA between the 8 Scales and Country

Between-Subjects Factors		
Country	Value Label	N
1	England	42
2	Portugal	36

Descriptive Statistics				
Country		Mean	Std. Deviation	N
Cohesion	England	2.3163	0.54241	42
	Portugal	3.7698	0.57273	36
	Total	2.9872	0.91522	78
Commitment	England	2.1111	0.59772	42
	Portugal	4.1481	0.59198	36
	Total	3.0513	1.18075	78
Complementarity	England	1.9286	0.54810	42
	Portugal	4.2738	0.48319	36
	Total	3.0110	1.28481	78
Motivation	England	2.1531	0.54411	42
	Portugal	4.1389	0.61039	36
	Total	3.0696	1.14881	78
Closeness	England	2.0119	0.60663	42
	Portugal	4.3090	0.53908	36
	Total	3.0721	1.28704	78
Compatibility	England	2.1696	0.52732	42
	Portugal	3.9201	0.52877	36
	Total	2.9776	1.02302	78
Coorientation	England	2.0208	0.54235	42
	Portugal	4.1563	0.46783	36
	Total	3.0064	1.18494	78
Power	England	2.0437	0.53604	42
	Portugal	4.2500	0.49522	36
	Total	3.0620	1.22065	78

Appendix N – MANOVA between the 8 Scales and Country

Box's Test of Equality of Covariance Matrices^a	
Box's M	50.028
F	1.232
df1	36
df2	18483.587
Sig.	0.160

Multivariate Tests^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.985	565.353 ^b	8.000	69.000	0.000	0.985
	Wilks' Lambda	0.015	565.353 ^b	8.000	69.000	0.000	0.985
	Hotelling's Trace	65.548	565.353 ^b	8.000	69.000	0.000	0.985
	Roy's Largest Root	65.548	565.353 ^b	8.000	69.000	0.000	0.985
Country	Pillai's Trace	0.875	60.468 ^b	8.000	69.000	0.000	0.875
	Wilks' Lambda	0.125	60.468 ^b	8.000	69.000	0.000	0.875
	Hotelling's Trace	7.011	60.468 ^b	8.000	69.000	0.000	0.875
	Roy's Largest Root	7.011	60.468 ^b	8.000	69.000	0.000	0.875

Levene's Test of Equality of Error Variances^a				
	F	df1	df2	Sig.
Cohesion	0.339	1	76	0.562
Commitment	0.411	1	76	0.523
Complementarity	0.373	1	76	0.543
Motivation	0.579	1	76	0.449
Closeness	0.605	1	76	0.439
Compatibility	0.157	1	76	0.693
Coorientation	0.059	1	76	0.808
Power	0.094	1	76	0.760

Appendix N – MANOVA between the 8 Scales and Country

Tests of Between-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Cohesion	40.954 ^a	1	40.954	132.203	0.000	0.635
	Commitment	80.437 ^b	1	80.437	227.142	0.000	0.749
	Complementarity	106.618 ^c	1	106.618	395.489	0.000	0.839
	Motivation	76.443 ^d	1	76.443	230.738	0.000	0.752
	Closeness	102.288 ^e	1	102.288	307.765	0.000	0.802
	Compatibility	59.399 ^f	1	59.399	213.074	0.000	0.737
	Coorientation	88.394 ^g	1	88.394	340.663	0.000	0.818
	Power	94.364 ^h	1	94.364	352.166	0.000	0.822
Intercept	Cohesion	718.034	1	718.034	2317.871	0.000	0.968
	Commitment	759.457	1	759.457	2144.594	0.000	0.966
	Complementarity	745.717	1	745.717	2766.158	0.000	0.973
	Motivation	767.410	1	767.410	2316.367	0.000	0.968
	Closeness	774.497	1	774.497	2330.305	0.000	0.968
	Compatibility	718.887	1	718.887	2578.761	0.000	0.971
	Coorientation	739.646	1	739.646	2850.533	0.000	0.974
	Power	767.825	1	767.825	2865.524	0.000	0.974
Country	Cohesion	40.954	1	40.954	132.203	0.000	0.635
	Commitment	80.437	1	80.437	227.142	0.000	0.749
	Complementarity	106.618	1	106.618	395.489	0.000	0.839
	Motivation	76.443	1	76.443	230.738	0.000	0.752
	Closeness	102.288	1	102.288	307.765	0.000	0.802
	Compatibility	59.399	1	59.399	213.074	0.000	0.737
	Coorientation	88.394	1	88.394	340.663	0.000	0.818
	Power	94.364	1	94.364	352.166	0.000	0.822
Error	Cohesion	23.543	76	0.310			
	Commitment	26.914	76	0.354			
	Complementarity	20.489	76	0.270			
	Motivation	25.179	76	0.331			
	Closeness	25.259	76	0.332			
	Compatibility	21.187	76	0.279			
	Coorientation	19.720	76	0.259			
	Power	20.364	76	0.268			
Total	Cohesion	760.510	78				
	Commitment	833.556	78				
	Complementarity	834.259	78				
	Motivation	836.571	78				
	Closeness	863.703	78				
	Compatibility	772.125	78				
	Coorientation	813.117	78				
	Power	846.028	78				
Corrected Total	Cohesion	64.497	77				
	Commitment	107.350	77				
	Complementarity	127.107	77				
	Motivation	101.622	77				
	Closeness	127.547	77				
	Compatibility	80.586	77				
	Coorientation	108.114	77				
	Power	114.728	77				