

ANALYSIS OF THE SPORTS CAREER OF BRAZILIAN INTERNATIONAL ELITE SQUASH ATHLETES

ANÁLISE DA CARREIRA ESPORTIVA DE ATLETAS BRASILEIROS DE SQUASH COM NÍVEL INTERNACIONAL

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RESUMO

A carreira esportiva é um processo onde o atleta, de forma voluntária, busca atingir níveis elevados de desempenho esportivo, entretanto não se conhece sobre como ocorreu o desenvolvimento da carreira esportiva em atletas de squash. O objetivo foi analisar a trajetória esportiva de atletas brasileiros de squash de nível internacional em diferentes momentos da carreira esportiva. Utilizando o Quadro de Desenvolvimento de Valores Pessoais no Esporte como base, realizamos entrevista semi-estruturada com seis atletas (três do sexo masculino e três do sexo feminino), e empregamos para a análise das entrevistas a Análise Temática. Os resultados encontrados foram que os temas características pessoais, relações interpessoais e o contexto de prática esportiva são temas que possibilitam o desenvolvimento da carreira esportiva de atletas de squash. De modo conclusivo os três aspectos, atuando de forma concomitante, possam ofertar, de modo favorável, o desenvolvimento de atletas de squash de nível internacional.

Palavras-chave: Atletas. Performance Esportiva. Esportes com Raquete.

ABSTRACT

The sports career is a process through which the athletes voluntarily seek to achieve high levels of sport performance, however, how the development of international elite squash athletes has occurred in different periods of their sports career is not known. This study aimed at describing and assessing the sport trajectory of Brazilian international elite squash athletes at different periods of their career, in light of dynamic elements, that is, personal engagement, quality relationships and appropriate settings. Semi-structured interviews were carried out based on the Personal Assets Framework (PAF). The interviews were applied to six athletes (three males and three females) and evaluated according to the Thematic Analysis (TA) method. The results showed that personality traits, interpersonal relationships and the sport practice settings enabled the squash players to develop their sports career. In conclusion, these three aspects when acting concurrently can favor the development of international elite squash athletes.

Keywords: Athletes. Sport performance. Squash.

Introduction

Squash is a racquet sport^{1,2} originated in the mid-nineteenth century, however, in Brazil its onset is dated from the twentieth century. The Brazilian Squash Confederation (in Portuguese: *Confederação Brasileira de Squash* - CBS) was founded in 1991^{1,3}. In spite of being a recent modality in Brazil, this sport has a history of achievements in international competitions with regard to the junior and senior categories³.

Considering the scope of scientific investigations, there are studies related to the performance assessment based on the observation of physiological variables, that is, notational analyzes, in addition to studies on sports injuries⁴. However, understanding the experiences and processes experienced by the athletes throughout their interaction with the sports career is an incipient theme in the scientific community. Studies on sports career of elite athletes offer fundamental information for making decisions in the scope of long-term planning and sport development⁵.

The sports career is understood as the set of systematic sport activities to which an athlete gets voluntarily engaged with the purpose of reaching high performance levels, which trigger a

succession of stages and transitions that encompass since the sport initiation phase until the moment the athlete decides voluntarily or not to end his/her career^{6,7}. Therefore, this is a dynamic process characterized by constant changes and influences arising from the interaction with different social agents (family, friends, and coaches), besides the context (macro and microsystem).

Understanding the sports career over the last decades⁵ has broadened its perspectives regarding the scope and interfering factors. Initially, the object of investigation focused on understanding the end of the career (retirement process), but it did not prioritize the episodes that had constituted the entire trajectory in sport⁵. In recent years, there has been an ecological trend, capable of delimiting both, the trajectory of the athletes in sport and the multiple personal, interpersonal and contextual factors that influence it⁸⁻¹⁰.

In this sense, the Personal Assets Framework (PAF)¹¹, a model created to guide and subsidize a sports program with broad purposes, highlights the importance of the interaction among the dynamic elements (personal engagement in activities, quality relationships and appropriate settings) to provide the athletes with experiences capable of stimulating, in the short term, the development of personal assets, such as competence, confidence, connection and character (4Cs). In addition, in the long term, such experiences will stimulate permanence in sports practice according to the goals of the person, whether participation or high performance; this last one was the object of observation in the present study¹¹.

Considering the Brazilian context, PAF¹¹ has been used as a theoretical framework to understand engagement and permanence in sport, the activities experienced, social support offered, the facilities, influence of the settings, and the determinants of success and excellence with regard to the elite athletes' career¹². Women's handball¹³, men's and women's volleyball¹⁴ and women's basketball¹² constitute some of the modalities already investigated. However, studies are carried out on predominantly collective modalities, thus, there is a great gap regarding individual modalities, such as racquet sports¹⁵.

Therefore, this study aimed at describing and assessing the sport trajectory of Brazilian international elite squash athletes at different periods of their career, in light of dynamic elements, that is, personal engagement in activities, quality relationships and appropriate settings.

Methods

This is a qualitative retrospective study aimed at providing understanding on all the career development stages experienced by the athletes herein investigated¹⁶.

Participants

The participants were selected based on a non-probability sampling¹⁷. Three male and three female athletes participated in the study. They had competed in the elite squash circuit tournaments representing CBS along three different stages of their careers. The inclusion criteria comprised the following: a male athlete and a female athlete who had recently changed from the junior to senior category and had been at least number 3 in the junior category national ranking, besides having represented CBS at international level; a male athlete and a female athlete with the best score obtained by a Brazilian athlete in the international ranking at the time of the interview according to the Professional Squash Association (PSA), in addition to having represented CBS at international level; a male athlete and a female athlete at the end of their sports career who had been number 1 in the national ranking at some point in their career, besides having represented CBS at international level.

Table 1 shows information about the participants. The athletes interviewed are represented as either F (female) or M (male), followed by a number that indicates the moment

of the career they were at the time of the interview: (1) athletes in the transition from junior to senior; (2) elite senior athletes, and (3) athletes at the end of their elite career.

Table 1. Information on sex, age, time in sport, time in Brazilian junior, senior or master team, and the best results of the participants

Sex	Age	Time in Sport (Years)	Time in Brazilian Team (Years)	The Best Results
Junior Female 1 (JF1)	20	7	5	Four bronze medals in South American Junior Games and Pan American Junior Games.
Senior Female 2 (SF2)	33	23	13	Three silver medals and three bronze medals in South American Senior Games and Pan American Senior Games. The best Brazilian woman ranked top 60 in 2012/2013.
Master Female 3 (MF3)	54	36	23	Thirteen gold medals, one silver medal and four bronze medals in South American Senior Games and Pan American Senior Games.
Junior Male 1 (JM1)	23	17	8	Six gold medals and a bronze medal in the South American Junior Games and Pan American Junior Games.
Senior Male 2 (SM2)	33	19	4	One bronze medal in PSA tournament in Brazil (2013). The best Brazilian man ranked in the Professional Squash Association in 2015/2016.
Master Male 3 (MM3)	41	24	15	One silver medal in the Pan American Games of the Dominican Republic (2003), ranked top 50 in the Professional Squash Association in 2006

Source: The authors, based on information provided by the interviewees

Procedures

The contact with male and female athletes was made via e-mail by providing them with information on the purposes of the research, the possible risks and procedures. After signing the Free Informed Consent Form, semi-structured interviews were carried out in person on the day, place and time the athletes preferred; in all cases they chose their gyms and outside the training hours to answer the interview. The interviews lasted an hour and a half in average and were audio recorded with immediate transcription and subsequent analysis. The study was approved by the Research Ethics Committee, under opinion number 49976815.4.0000.5404.

The questions script for the interview was structured based on the development stages of the sports career, that is, early childhood and initiation, specialization, and high performance¹⁸. The script comprised 71 questions; for example: What was your childhood like? How was your sport initiation process in general/in squash? What motivated you to choose the squash modality to specialize? What were the training facilities like in high performance?

Data analysis

Thematic Analysis (TA) was used, an approach according to which the researcher seeks to identify patterns of meaning in a set of qualitative data aimed at describing and interpreting the meaning and significance of these patterns (or themes)¹⁹. Data analysis was carried out according to TA six-phase model: (1) becoming familiar with the data, (2) generating codes, (3) generating themes, (4) reviewing themes, (5) naming, and (6) writing up.

A dense reading was carried out in phase 1 in order to understand the patterns and meanings of the data set; notes on the excerpts that contributed to answer the study question were taken. This reading was conducted according to the three elements of PAF¹¹ (personal engagement in activities, quality relationships and appropriate settings), which at that time characterized a deductive analysis. In phase 2, the notes previously taken went through an analysis at the latent and semantic levels, and, then, reduced and changed into codes. In phase 3, the codes that had something in common were grouped, which generated the first candidate or provisional theme. In this phase the grouping of codes was conducted by using the inductive method based on the information that emerged from the data. In phase 4, the process of reviewing the ‘candidate’ or ‘provisional’ themes was started by working with both, the encoded data and the original data source, which is the procedure recommended¹⁹ to test the strength and reliability of the themes. In phase 5, each theme went through a detailed description in order to understand the essence and choose a term that would express its central idea.

Finally, in phase 6 a final review of the data was carried out and the process of writing the results started. After completing all the procedures, three main themes were established: personality traits, interpersonal relationships and influence of the sport settings. The first and second authors of the present study carried out the entire analysis process according to the peer-review system²⁰ and using the NVivo 11 program.

Results

The results are shown based on the three themes established: personality traits, interpersonal relationships and influence of the sport settings, which were temporally organized by considering the development phases adopted in this study (initiation, specialization and high performance). Fictitious names were used for all the participants shown in the tables. The athletes interviewed are represented as either F (female) or M (male), followed by a number that indicates the moment of the career they were at the time of the interview: (1) athletes in the transition from junior to senior; (2) elite senior athletes, and (3) athletes at the end of their elite career.

Table 2 shows the personality traits, such as shyness, determination, dedication and others that have somehow influenced the athletes during one or more phases of their sports career.

Table 2. Personality Traits

Theme 1 – Personality traits	
Description: this theme addresses the athletes' personality traits that have positively or negatively influenced them regarding engagement and permanence in sport.	
Initiation	
Sub-themes	Athletes
Personality traits that facilitated engagement in sport (dedication and resilience)	'I always insisted, I insisted. I remember that from all stages I managed to succeed I won just one. It was a phase almost nobody participated in; not all players were, but I played the whole circuit'. (MM3)
Personality traits that hindered engagement (shyness)	'The first sport my mom made me do was Olympic gymnastics, and I was very shy, I couldn't make friends with the girls, and it didn't work. Then, she put me in basketball, and it was the same thing, team sport, I had to talk to a lot of people, I found it too hard'. (SF2)
Specialization	
Personality traits related to permanence in sport	'Everyone saw it as a hobby and I saw it as my daily obligation (...) I think one of the reasons for my early success was to have faced it in a way that people my age had not been doing'. (JM1)
Behavior change	'I was very quiet, shy, I went into the gym without talking to anyone and left without talking to anyone, but it was a positive environment, so I started to let it go and I took this to life, I started to change completely because of squash.' (JF1)
Positive experience	'Squash was the sport I most enjoyed doing, I felt really good ... actually much better playing squash than tennis'. (MF3)
High Performance	
Personality traits related to permanence in sport (dedication)	'Antônio was the best Brazilian champion, you know. I will train with another player to try to beat him, no, I will train with him, I want to know what he does. If he makes ten movements I want to make twelve, if he runs in ten seconds, so I'm going to try to run in nine. I wanted to be on his heels to try to do everything better and beat him.' (MM3) 'I trained 3 hours a day, 5 days a week, and I alternated physical training with the technical training. In this part I was not very organized, for example, the morning training was physical and the afternoon one was technical; this happened and I sometimes changed the order.' (JM1)
Positive experience regarding participation in international tournaments	'It was different pressure, but it was pressure, so in the beginning I was very stressed and I saw players at a very high level, you know... but then with practice I got used to it, you know, in the last tournaments I was very calm'. (SM2)

Source: the authors

Table 3 shows the interpersonal relationships with focus on the athletes' relationship with family, friends and the coach. The family members and the coach have proved to be important groups during all phases of the athletes' sports career, which is different from the friendships the athletes had during initiation and specialization.

Table 3. Interpersonal relationships

Theme 2 – Interpersonal relationships	
Description: The theme addresses the relationships between certain groups that were essential so that the athletes had motivation for playing squash	
Initiation	
Sub-themes	Athletes
Different activities with family and friends	‘I have an older brother, so we played with friends on the street.’ (JF1) ‘I stood out a lot in football, handball and basketball. I always used to play these three games, I joined a team and played. I also participated in races.’ (SF2) ‘In High School I was always the one who played all sports, I participated in all the championships. I played Intercity and Interschool games, all of them.’ (JM1)
Financial and emotional support from family	‘What always encouraged me was that I had lost my father too early, you know, so, there was a phase in my life that sports became a kind of ideal of living, it became like an outlet... I was twelve to thirteen years old, so it became an outlet, so I wanted ... I wanted sport to be in my life at all costs, so I made up my mind that I wanted to be an athlete.’ (MM3)
The coaches’ positive attitudes	‘I always had a very close relationship with the coaches, you know, the first one was Luis.’ (JF1)
Specialization	
Family offered emotional and financial support	‘My father and mother have always been my support; and to play in South American Games I used to do a raffle to get the money I needed to play the tournament. I started doing that since I was 11 to 15-16 years old’. (JM1)
Participation in squash made it possible to create bonds	‘I trained with the men who played in the club, you know, so I always received some instruction from them, some tips that helped me play a little better. Any help was welcome for me, so I never missed training or stopped playing with those guys because I always learned a little more with them’. (MF3)
Positive attitudes and creation of friendship bonds with the coaches	‘(...) regarding the current coach, Diego, we have always had a very close relationship, friendship. So, we always organized things together, it was never something like: do it, work it out for yourself’. (JF1)
High Performance	
Family offered emotional support	‘My family continued to support me. My family always supported me a lot, especially my mother’. (SF2)
A competent coach	‘As soon as I moved to São Paulo I started training with Roberto. He was great, I learned a lot with him’. (SF2)

Source: the authors

Table 4 shows the influence of the settings in sport. It addresses how physical facilities, as well as financial support and sports equipment were fundamental for the development and permanence of the athletes considering the phases of their sports career.

Table 4. Influence of the settings with regard to participation in sport

Theme 3 – Influence of the settings with regard to participation in sport	
Description: This theme addresses the influence that different settings have had throughout the athletes' career. Availability of financial and material support, and quality of training centers.	
Initiation	
Sub-themes	Athletes
Different activities during childhood	'We used to play a lot in childhood, playing hide and seek, tag'. (JF1)
Initial training facilities were good during squash initiation	'The club where I started to play was one of the best in the state of São Paulo, so the facilities have always been great, so much that I have always played in that club'. (MF3)
Specialization	
Elements more trained in this period	'It was certainly the technical and physical elements, because if you don't have any of these, it is difficult to play squash'. (JM1)
Absence of planning for squash training	'Nothing was thought out, each day we did something different, you know, like: let's train this, then we did it (specific technique of the modality) boast and shots, but nothing was organized at all, nothing like physical preparation, nothing like that. We got there, trained and played all day'. (SM2)
The training facilities in Brazil were homogenous	'I think here in Brazil all training centers are similar, there are usually 2 or 3 squash courts, with a maximum of one gym and that is it...usually in a club or isolated gym. So I think there is no way to say: oh the best place in Brazil to train is such, because the training centers are practically the same'. (MM3)
Financial and material support	'I started receiving money from the athletic scholarship; I also started to have support for sports equipment'. (JM1)
Financial support from friendships for practice / tournament participation	'I had the support from the athletic academy, you know; André supported me; they paid my tickets and supported me in the junior championships'. (MM3)
High Performance	
The international settings offered better facilities for practicing	'The best place I managed to train abroad was in England, I learned a lot and here in the United States as well'. (SF2)
The most trained skills	'The place where I have been playing now is better ... we are paying more attention to the tactics than to physical skills, but this year I think I will train a lot of physical skills too because professional games are much harder than junior games'. (JF1)
Organization and maintenance of training before tournaments	'The most that happened was that I arrived a few days earlier to play ball and get to know the training center; the same way it happened with the national team. (SM2)
Awards	'Yes, I had some, but it was very little, it was around \$500, which sometimes was the same or more I spent to participate in a certain PSA tournament.' (SM3)

Source: The authors

Discussion

The assessment of the influences regarding the sports trajectory of Brazilian squash athletes showed that being resilient, dedicated, committed and setting goals are positive personality traits for being a squash athlete. Such characteristics are relevant to the engagement and permanence in the different stages of sports participation (initiation, specialization and high performance). Studies that sought to evaluate the factors related to sports success highlight the psychological characteristics (being committed, motivated, confident, persistent, dedicated, and establishing career goals) as fundamental to achieve sports excellence²¹⁻²³.

However, two athletes showed personality traits that made permanence in some settings difficult, such as shyness. Some studies^{12,24} highlighted negative behavior (depression, arrogance) as elements that can interrupt participation in sport, as seen in the speech of JF1 and SF2 athletes. Therefore, the personality traits of squash athletes do not seem to be different from those expressed by athletes from other sports.

Considering the initial practices of the athletes, the diversification of activities was a common element identified in the speech of the six athletes. At this stage, the participants revealed that they had been involved in different practices when they were younger. JM1, for example, highlighted the formal environment. SF2, on the other hand, revealed the same plurality of involvement, but in a non-formal environment. This diversity with regard to the settings and practice has also been evidenced by other scientific research²⁵⁻²⁷, and this element is pointed out in the literature as relevant for the child's development in sport²⁵⁻²⁷.

Regarding initiation, providing sportive diversification and training strategies based on the deliberate game are assumptions defended by PAF¹¹ as being important to promote the positive development of young people²⁸. However, when assessing the Brazilian squash context, as much as this diversification occurs, the organization of this process occurs unsystematically, without intention (on the part of clubs, city halls, squash academies, coaches) to guarantee a training environment with different types of practice¹².

Considering the specialization stage, training gains in specificity, thus, teaching technique and physical fitness are prioritized²⁹⁻³¹. Once a young person decides to specialize in squash, the sport practice assumes a training character, but without a previous training organization or planning, which corroborates with a study³² carried out with talented tennis athletes.

When starting to participate in some competitions, the athletes accumulate positive experiences for the course of their sports career, along with the experiences they had in early childhood and initiation, which maximizes some existing experiences and generates new ones in a favorable process for the permanence in sport³³. Thus, the careers herein observed showed a rich and adequate initiation process, however, considering the Brazilian international elite squash athletes, better facilities and training organization are lack, which can be a potential reason for the low competitiveness of these athletes in multicontinental competitions.

The quality relationships related to sports practice has been identified as one of the main factors that influence permanence in sport, overcoming structural and financial difficulties and enabling access to other sports settings¹². The relationships that the child or young athlete establishes with parents and coaches are fundamental for his/her motivation to continue practicing these activities and develop positive personality traits^{27,34}.

The financial support offered to young athletes as a result of their relationships with parents and friends in the sports settings is another pertinent factor. This is more relevant in the specialization stage, especially due to the costs resulting from participating in competitions^{34,35}. The family and their participation throughout an athlete's career have been largely associated with providing financial and emotional support. Regarding the squash athletes, initially, the role of the family proved to be crucial for their permanence in sports practice, providing the necessary resources so that the athletes would be able to travel to competitions and to participate in training^{25,26,34}. The present study showed that parents and family members are also

responsible for encouraging and motivating the athletes by offering emotional support, as in the case of studies on other modalities^{35,36}.

The relationship with the coaches was considered positive due to the establishment of bonds of friendship and affection³⁷. The training environment, which is shaped by positive relationships between the coach and athlete, is strengthened as a factor that contributes to both, engagement and development of the sports career with the purpose of obtaining sport excellence³⁷⁻⁴⁰.

Finally, the influence of appropriate settings in the sport was highlighted by the six squash athletes, with emphasis on the physical facilities since initiation, given the specificities of the squash court, which requires a very specific space. This opinion is strengthened in the transition from initiation to specialization, when having a training center with a quality similar to that where competitions take place is essential, as revealed by MM3: 'So I think there is no way to say: oh the best place in Brazil to train is such, because the training centers are practically the same'. Then, when the athletes reach high performance, they try to seek better settings for practicing squash; going to other countries is often necessary, such as England and Egypt.

Considering other modalities, for example swimming³⁴, it was seen that during the specialization stage, the athletes had financial support from their parents, unlike the squash athletes in our study, in which friendships made in the practice settings could help the athletes with financial matters. A second study²⁶ showed that one of the expressive factors with regard to the sports career is the support from some sponsorship, thus, it is in agreement with two sub-themes, that is, financial and material support. Therefore, financial support is a key issue for the athletes who develop a sports career in squash with the aim of being part of the international elite.

Conclusions

As far as we know this is the first study on the sports career of squash athletes and, as shown in other investigations carried out with national and international athletes from other modalities, the personality traits, interpersonal relationships and appropriate settings are important for the athletes' development in sports. The present study based on PAF, showed that these elements work as gears, which when acting together enable the development of a sports career. In addition to these gears, the different practices and settings for initiation are fundamental for the permanence of the athletes in sport, as shown in other modalities and by athletes from other contexts.

Unlike other studies, the facilities available for squash initiation are somewhat common regarding the athletes of different ages and moments of their career. The athletes reported that there is no fitness center in the country able to provide support and suitable development for the athletes of this modality during the stages of specialization and high performance. The family members and coaches became even more important, since they offered the support not yet provided by the Brazilian institutions that promote this sport, which made it possible to concretize the careers herein investigated.

Since this is a retrospective study it has some limitations, that is, the investigation depends on the ability of the athletes to remember to comment on their sports careers and the facts that had embraced the whole process. However, it is believed that the present study will help sport professionals, such as coaches and managers, in the sense of acting positively for the development of squash athletes. In addition, it is expected that this study can support others performed on the most different modalities - especially the non-Olympic ones - by assisting in the growth and management of squash and people engaged in different sports in the country.

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