# Elite futsal players' perceptions of paths to expertise: a multidimensional and qualitative approach

Sixto González-Víllora<sup>1</sup>, Alejandro Prieto-Ayuso<sup>2</sup>\*, María Pilar León<sup>2,3</sup>, Jorge Luiz Costa Marinho<sup>4</sup>, Bruno Travassos<sup>5,6,7</sup>

This study aimed to describe the perception of expert futsal players about the pathway that guides their development to expertise. Twenty-three professional futsal players from Brazil, Spain, Italy, Portugal, and Argentina were interviewed. The participants must have reached the elite in futsal by competing in professional leagues, as well as to have participated in international competitions with the national team. Six categories emerged from qualitative analysis: (1) positive influence of context, (2) Abilities/skills of the young player, (3) Educational background, (4) Training stages, (5) Key aspects of training, and (6) Retirement and post-career. Results revealed similar patterns in the pathway to expertise within futsal. Participants considered their family and coaches as key individuals in their careers. They also highlighted psychological and personal skills as the most relevant for a player to reach the elite. Furthermore, most participants considered that both unstructured play and training with better players positively influenced their careers. Our results could help coaches to adjust their long-term talent development models.

KEYWORDS: expertise; psychological; talent development; transition; interview.

#### INTRODUCTION

Talent development in sports has been studied by many researchers in the last decades due to the social and economic importance of reaching the elite (Woods, Joyce, & Robertson, 2016). Over the last years, the assumption that talent results from the constant interaction between genes and environment (from macro contextual settings to micro-structure of practice) was reinforced by previous research (Davids, Güllich, Shuttleworth, & Araújo, 2017; Güllich, 2018). This interaction may facilitate the individual development for exceptional sports performance with the risk of identifying different successful paths for talent development (Davids et al., 2017; Baker, Schorer, & Wattie, 2018) due to the influence of differences in macro contextual settings and the micro-structure of practice observed in different sports (Davids et al., 2017; Güllich, 2018).

To uncover the contextual settings and the micro-structure of practice for talent development, one of the most common

methods was the analysis of the paths to the expertise of the athletes (Gulbin, Weissensteiner, Oldenziel, & Gagné, 2013). The use of this method leads researchers to create several models of the pathway to the elite. Bloom (1985), for example, highlighted that individuals go through three stages in the pathway to excellence: Early Years and Stage of Initiation, Middle Years and Stage of Development, and Late Years and Stage of Perfection. Later, Côté (1999) and Baker, Cote, and Abernethy (2003) improved the previous work of Bloom and proposed that the development of expertise go through three new stages: Sampling Years, Specializing Years, and Investment Years. One of the main assumptions raised by the authors was that there was such a great difference in both the quality and quantity of training between experts and non-experts during the last stages of development.

In short, during the first years of players' development, they participate in enjoying activities with the only purpose of trying as many activities as parents/teachers can provide them

<sup>1</sup>University of Castilla-La Mancha, Faculty of Education – Albacete, Spain.

<sup>2</sup>University of Castilla-La Mancha, Faculty of Education – Cuenca, Spain.

<sup>3</sup>University of Murcia, Faculty of Sports Sciences – San Javier, Spain.

<sup>4</sup>Autonomous University of Madrid – Madrid, Spain.

<sup>5</sup>Departamento de Ciências do Desporto, Universidade da Beira Interior – Covilhã, Portugal.

<sup>6</sup>Centro de Investigação em Ciências do Desporto, Saúde e Desenvolvimento Humano, CIDESD – Covilhã, Portugal.

<sup>7</sup>Portugal Football School, Federação Portuguesa de Futebol – Oeiras, Portugal.

\*Corresponding author: Facultad de Educación de Cuenca. Campus Universitario, s/n., Cuenca, Spain. 16071. E-mail: alejandro.pieto@uclm.es

Conflict of interest: Nothing to declare. Funding: nothing to declare. Received: 03/18/2021. Accepted: 04/28/2021.

(Bloom, 1985). Teachers play a key role in this stage. Later, during the specialisation years, the athlete starts focusing on one or two sports. Their teachers and coaches are technically more prepared, and parents show a gradual interest in the sport chosen by the athlete. The time for training increases as well as the discipline and hardworking. Competition is seen as a measure of evaluation. Finally, during the investment years, athletes reach expertise and spend as much time and effort as they can to be successful. The coach has high importance to them. In this stage, parents are not as relevant as they were previously (Côté, 1999). Despite this, Güllich (2018) recently reinforced that elite and non-elite players were not discriminated by the time of training of specific sport practice but by the variability of practice and interplay during the Sampling years. The Holistic Athletic Career Model (Wylleman & Rosier, 2016), a lifespan perspective of career development, advocated the need to understand career development as a sequence of phases in a multilayer process (Battochio, Stambulova, & Schinke, 2016; Stambulova & Wylleman, 2019).

Within football, the paths for talent development have been studied with some attention in the last decades (Collins & MacNamara, 2012). Thus, meanwhile there is considerable evidence of studies about talent development in football; it does not seem to exist the same literature when it comes to futsal. To our best knowledge, only one study compared the long-term athlete development of elite and non-elite Portuguese futsal players (Serrano, Santos, Sampaio, & Leite, 2013). Interestingly, contrary to previous research in football (Güllich, Kovar, Zart, & Reimann, 2017), results revealed that elite players are differentiated from non-elite futsal players by higher competitive level for a progressive specialisation since the age of 14 with a corresponding increase in the quantity (i.e., time of formal practice and number of formal games) and quality of futsal practice (Serrano et al., 2013).

Nevertheless, in line with Coutinho, Mesquita, and Fonseca (2016), a detailed contextual description of practice is required to capture different factors that can positively or negatively influence players' career development. Retrospective interviews with expert players allow the mobilisation of their empirical knowledge and feelings about their own experiences in a first-person view, which can be very reached and informative to understand the process (Sosniak, 2006).

Therefore, this qualitative study aimed to describe the perception of expert futsal players about the pathway that guides their development to expertise. Our research questions were 1) how is the development process of talented futsal players? And 2) why do some players reach the elite level and others do not? Thus, the purposes of this study were: (1) to

gain depth knowledge about the influence of the context and the people who influenced players' careers through all stages. And (2) to identify the individual skills that characterise a potential futsal player and its development, (3) to identify the sporting life of participants at different stages of talent development, (4) to understand the perspectives of career retirement and post-career of elite athletes.

#### **METHOD**

# **Participants**

The criteria for considering a potential participant were the following: (1) to have reached the elite in futsal by competing as senior players in the best clubs of their country or other, and (2) to have participated in international competitions. Twenty-three professional futsal players took part in the study ( $M_{\rm age}$ = 30.60, SD= 3.56). They belonged to five nationalities: Brazil (5), Spain (5), Italy (5), Portugal (5) and Argentina (3). They were contacted in person by the authors of the study.

#### Measures

A semi-structured interview composed of 50 questions was developed based on previous literature (Côté, Ericsson, & Law, 2005; Carapinheira, Torregrossa, Mendes, Carvalho, & Travassos, 2018; Monteiro, Monteiro, Nunes, Torregrossa, & Travassos, 2020). The interview guide (Table 1) was written in the English language and sent by email to five experts (one of each nationality) in the field of talent identification and development. All of them approved the interview and translated it into their native language.

#### **Procedures**

Prior to data collection, the aim of the study was explained, and participants gave their verbal consent to the interview being recorded. Interviewers ensured the anonymity of the data and guaranteed that the information would be used exclusively for research purposes.

Interviews were scheduled at times convenient for the participants and were conducted by telephone or video call by three researchers between 2018 and 2020. Participants were interviewed for approximately 45-60 minutes in their native language. All interviews were audio-recorded, transcribed verbatim and translated into English to be coded and analysed by the second and third authors.

# Qualitative analysis

Transcribed material was uploaded into the qualitative software Atlas.ti 8.4.15 for coding and analysis. A qualitative

#### Table 1. Final interview guide.

#### Warm-up questions

- 1. What is your home city?
- 2. Was any of your parents a professional futsal or other sports professional?
- 3. Can you tell us how you consider your family structure?
- 4. How many siblings do you have? Do they practice any sport?

#### Questions about the beginning and training in the futsal

- 5. How did you start playing futsal? What is the reason that led you to play it?
- 6. At what age did you start playing futsal in an unstructured way? (Street, schoolyard, with friends, etc.) Where? Did you play with peers of the same age?
- 7. At what age did you start playing structured futsal (clubs, schools, etc.)? Have you always played in your age group or sometimes with higher category teams?
- 8. How many years have you been training futsal until reaching the elite?
- 9. How many years have you been competing professionally in futsal?
- 10. How many days and hours did you train per week when you were in the following stages: Promotion stage (6 to 11 years old), initiation stage (12 to 14 years old), technification stage (15 to 17 years), and performance stage (18 years or over).
- 11. How many days and hours do you currently train per week?

#### Questions about the sports career

- 12. Since childhood, have you always loved playing sports? Which ones have you practiced? How often?
- 13. Have you done other artistic / cultural activities (music, painting, etc.) besides sports?
- 14. When did you begin to realise that you wanted to be a professional soccer player?
- 15. Did you leave home to continue your sports career? At what age?
- 16. Who gave you the first opportunity to play on a professional team?
- 17. At what age did you debut in the first division? What has been your career before playing in the first division?

#### Questions about the influence of the context

- 18. Who was the first person to tell you that you could be a professional futsal player?
- 19. During your career, did you drop out of school to continue your development process in futsal? What are the difficulties in reconciling your studies with your profession as a footballer?
- 20. How important was your family to studying? Do you consider it important to have good qualification to reach the elite of futsal?
- 21. Did your family have to make sacrifices for your sports career?
- 22. Has your family pressured you to become a professional soccer player?
- 23. What influence does your partner have on your participation in futsal and in the development process? In addition, your friends?
- 24. What influence did your coaches have? Did they pressure you to stand out from other players?
- 25. In which area (technical knowledge, leadership or motivational) was the coach more important for you? Why?
- 26. What influence did the Physical Education teacher have on your involvement with sport?
- 27. If you had to choose, who would be the person who most influenced your career as a futsal player? why?
- 28. Who was the person who most helped you not give up on your dream?

#### Questions about the training

- 29. What do you consider most important in training, the quality or quantity of it?
- 30. What is the value you place on physical training? (Strength, endurance, flexibility, agility, speed). Do you prefer to do it in the club or individually?
- 31. Is it better to train under pressure? (For example, playing a final) Why?
- 32. What is the role of psychological / mental training?
- 33. What is the importance of viewing videos of your team and the opposing teams?
- 34. Do you prefer to train and play with colleagues that are more physically and technically trained than you? Why?

#### Questions about key aspects in the development process

- 35. What characteristics must a young player have to reach and remain in the elite?
- 36. What is the importance of knowing how to cope with competitive stress?
- 37. What is the importance of competitiveness with oneself to reach the elite?
- 38. What is the importance of having a good relationship with teammates?
- 39. What is the role of self-confidence in this development process?
- 40. How important is the confidence that other coaches or colleagues have placed in you?
- 41. Do you consider commitment important in the development process?
- 42. What characteristic / ability / talent do you think coaches have seen in you to give you the opportunity to debut in the first division?

#### Questions about the future perspectives

- 43. At what age do you plan to retire as a professional futsal player?
- 44. Do you think about that time? Have you ever suffered from burnout syndrome? How do you feel when you think about the end of your career?
- 45. What do you plan to do after leaving futsal?

#### Questions about available resources

- 46. Do you consider it important to have had the material resources necessary to train (facilities, balls, cones, etc.)? Why?
- 47. Were the financial aid important? Why?
- 48. Since you started playing futsal, did you have enough opportunities to compete whenever you wanted?
- 49. What influence does your country have on your participation in futsal and in the training process?

#### Question to finish

50. Is there anything you would like to add that you consider important that was not said during the interview? (Importance of other aspects, luck, injuries, etc.).

content analysis was conducted, using a descriptive approach by interpreting data and measuring the frequencies of the categories and subcategories (Vaismoradi, Turunen, & Bondas, 2013). The analysis was conducted following the steps established by Elo and Kyngäs (2018).

The second and fourth authors independently read the same five interviews, representing 20% of the total, to familiarise themselves with the data. Each one highlighted the important ideas, grouped similar information into main categories/subcategories, and elaborated an initial codebook that was commented on with the other author in a meeting. After discussing the codifications that arose from their data readings, both authors resolved discrepancies and generated the final codebook, which the first author approved. This codebook included the categories and subcategories as well as their descriptions. Once the final codebook was created, the second author coded the entire data set using Atlas.ti.

The following section will show the main results and frequency of the categories (%).

#### RESULTS

Six categories emerged from the analysis of participants' responses: (1) Positive influence of context, (2) Abilities/ skills of the young player with potential to reach the elite, (3) Educational background, (4) Training stages, (5) Key aspects of training, (6) Retirement and post-career. Table 2 provides the descriptions and frequencies of each category and subcategory.

#### Positive influence of context

This category shows how different agents have influenced futsal players' careers. Overall, the context was found to have a positive influence on them. As 92% of players revealed, family and coaches were the most determinant agents in their pathway to the elite. Within this category, seven subcategories were observed and considered in the following order of frequency: family and coaches (92%), professional teammates (72%), home country (68%), material and financial resources (60%), friends (44%) and PE teacher (40%).

Concerning family, parents were those that exerted the highest influence on their careers. A Brazilian player (P7) said, "My parents were key, they always supported and encouraged me..., and they always fought for me not to work [in other jobs]." Regarding siblings, a Portuguese player (P23) said, "He [His brother] was the first person to tell me that I would reach the elite". However, although all players agreed on the importance of family in general, some

members appeared to have lower or even negative influence (e.g., "When I had a partner she bothered me a lot... I was not able to be concentrated on my work. It hurt me a lot at that time;" P6, Spanish).

Regarding coaches, all players acknowledged their importance since they are responsible for their training and guiding their development. As a Spanish player (P19) explained: "My coaches devoted 60-70% [of training time] to tactical... 20-30% to technical and 5-10% to psychological aspects."

Apart from family and coaches, professional teammates were also considered a key influence by many players. Participants mentioned that teammates help reach better outcomes and make the training easier. A Portuguese player (P16) said: "I don't think everyone has to be friends outside of the team environment, but you must always have respect between all colleagues and coaching staff. I think a good atmosphere brings good results more easily."

Finally, from the players' view, friends and PE teachers influenced their careers to a lesser extent. In fact, a Spanish player (P18) explained that the influence of PE teacher could have been negative: "I think the influence that he [PE teacher] had could have been even negative, because he [PE teacher] was from the old school [traditional]...and PE lessons were like military lessons."

Home country and material and financial resources were also highlighted as important positive contextual aspects. Some players explained that the home country is decisive in terms of the national recognition of futsal, as well as the available equipment and economic recognition. In this sense, an Argentine player (P21) said: "I think being comfortable and calm is very important, just focusing on sports, without being worried about having food one day, paying a bill or something like that. I believe that economics is also very important for futsal players."

Conversely, some players think that becoming a professional does not depend on their home country or financial support but on their commitment to reaching the elite. An Argentine player (P11) shared: "I believe that being a professional doesn't depend on having economic retribution...It seems to me that [being a professional player] depends on you, on what you want to do and how you want to do it." Similarly, a Spanish participant (P18) explained that home country or material and financial resources are not extremely decisive for being a professional player: "... He [one Brazilian colleague] appeared barefoot to play. He told me that he had learned to play barefoot and shoes were a luxury for him. It's, certainly, an example of a colleague who trained without shoes and equally reached the first division."

Table 2. Frequency and descriptions of each category and subcategory\*.

Categories	Subcategories	Description	Frequency	%
1. Positive influence of context	1.1 Family	Their parents, siblings and/or partner have had a great influence on their professional careers.	23	92
	1.2 Coaches	Their coaches, from all the categories, have had a great influence on their professional careers.	23	92
	1.3 Physical Education (PE) teachers	Their primary and secondary PE teachers had a great influence on their professional careers.	10	40
	1.4 Friends	Their friends have had a great influence on their professional careers.	11	44
	1.5 Professional teammates	The relationship with their teammates has a great influence on their professional careers.	18	72
	1.6 Home country	They think that the home country is decisive in terms of access to facilities and sport materials.	17	68
	1.7 Material and financial resources	The access to material and financial resources has notably helped them in their careers.	15	60
2. Abilities/ skills of the young player with potential to reach the elite	2.1 Physical abilites	They mention some basic physical abilities (e.g., endurance, speed).	3	12
	2.2 Technical-tactical skills	They consider both technical and tactical aspects as important.	8	32
	2.3 Psychological and personal skills	They mention some psychological aspects: coping with stress, engagement, motivation, self-confidence, humility and persistence	22	88
3. Educational background	3.1 Difficulties to combine studies and sport	Players explain that they had limitations to combine sport (training and competitions) with study from the deliberated play stage.	19	76
	3.2 Importance of being qualified to reach the sporting elite	They place value on having a good qualification to reach the elite.	18	72
4. Training stages	4.1 Deliberated play	Unstructured and informal play that took place in the street and playground with friends.	22	88
	4.2 Structured practice	Teams that participated in regulated and competitive leagues.	17	68
	4.3 Participation in other sports or activities	Apart from training futsal, they did another activities or sports.	20	80
	4.4 Promotion among categories	Players were promoted to higher categories because of their precocity in futsal (e.g., a U10 player trained and competed with the U12 team).	10	40
5. Key aspects of training	5.1 Quantity	They consider that quantity of training (i.e., more hours of training) is a key aspect in their professional careers, even more than quality.	4	16
	5.2 Quality	Contrary to the previous subcategory, players think that training quality is decisive for being a professional futsal player.	22	88
	5.3 Physical-condition	Same description as in 2.1	20	80
	5.4 Technical-tactical	Same description as in 2.2	2	8
	5.5 Psychological	Same description as in 2.3.	23	92
	5.6 Video display	Viewing videos, both of their rivals and their own matches.	20	80
	5.7 Training with better players	They reveal their preference for training and playing with better players.	22	88
6. Retirement and post-career	6.1 Remain associated with the futsal context	They have the intention to remain associated with futsal, developing other roles, such as sport manager, sport director or coach.	16	64
	6.2 Managing a business	They have the intention to set up a business, but not related to futsal.	10	40
	6.3 Resume studies	They have the intention to resume studies that they did not finish before because of their lack of time.	4	16

<sup>\*</sup>Frequency is based on the number of players who talked about each category or subcategory.

# Abilities/skills of the young player with the potential to reach the elite

The second category that emerged from the data was the identification of abilities/skills of the young player with the potential to reach the elite. Within this category, Psychological and personal skills (88%) were the most highlighted aspects by players, followed by technical-tactical skills (32%) and Physical abilities (12%).

Most players emphasised the personality and psychological characteristics (88%), such as coping with stress, engagement, commitment, motivation, self-confidence, humility and persistence as skills that young players need to develop to reach the elite. For example, a Spanish participant (P15) explained, "he has a minimum of skills, but especially he listens and wants to learn. He was a boy who really listens the coach, who asks, who is lively and really listens to the opinions of other players and coaches.", or "especially enthusiasm and passion" (P18, Spanish player), or

[Young players] must be very persevering and respectful. He must respect his teammates a lot, both those who play with him and those who play against him. For me, it is important to be humble and train, train, train. Train what you are good at, obviously. Train what you are not so good and always try to improve. That humility of knowing that you are never perfect, that you can always improve. Therefore, that is what can lead the person to reach the elite (P9, Brazilian player).

In opposition to the category of key aspects of training, players emphasised more the technical-tactical skills of youngers and only at the end their physical abilities. An Argentine player (P11) shared:

By doing the basics (controlling, guiding, passing, and kicking), being physically and mentally well, you can play on the elite level." Another one stated that "It is true that in futsal, control and passing are essential. Without control and pass, you cannot get anywhere, but well, you must differentiate the quality in terms of control and pass. I believe that physical aspect and tactical rigor, having a technical basis of control and passing, and competitiveness with oneself is what matters.

Finally, some players also acknowledged the key role of physical abilities for the development as futsal players (e.g., "The main thing is that guys are physically well, that they take care of themselves... I think that having that, they can get to play in a league." P21, Argentine player).

### **Educational background**

The third category that emerged from the data was the players' educational career. Within this category, two subcategories were observed and considered in the following order of frequency: Difficulties in combining studies and sport (76%) and the importance of being qualified to reach the sporting elite (72%).

Players revealed the value they place on studying and the difficulties they handled combining studies and a futsal career, which led some of them to leave their undergraduate studies. A Spanish player (P18) said:

> The main problem is the physical fatigue caused by the training sessions. After that, you must have the willpower to dedicate yourself to study. Moreover, you might miss many classes due to the training sessions, but especially for trips around the country each weekend. It's true that we have a lot of free time, but it isn't easy to invest that free time in studying.

However, sometimes this decision was voluntary and not forced by the situation. An Argentine player (P11) stated: "It was a choice of mine not to continue studying at the university level, but it was a mistake."

There was no consensus about the importance of being qualified to become futsal players (78.26%). Most of them claimed that qualification is not necessary but recommendable. In this sense, one of the Spanish players (P18) explained that he was signed by a professional team because of his high qualification: "The coach considered they [coaches] must have qualified people in a team because they had many bumpkin [players]."

# Training stages

This fourth category included an insight into the players' training stages throughout their lives. Participants were asked about the deliberated play and structured practice to gain such insight. They were also asked about their participation in other activities and possible promotion among categories.

Within this category, four subcategories were established: deliberated play (88%), participation in other sports or activities (80%), structured practice (68%), and promotion among categories (40%).

Deliberated play and participation in other sports or activities were considered very important in developing the expertise. However, such a process was not linear, and some players started to play futsal at an older age (e.g., "I started playing futsal when I was 16, directly in the first team;" P1, Italian player).

On average, futsal players in our study had only 6.2 years of training until reaching the senior level. Almost all players participated in other sports or activities during their childhood and adolescence, such as other sports, music or painting.

Finally, nearly half of the players (40%) were usually promoted to superior categories because of their precocity and talent (e.g., a U10 player trained and competed with the U12 team). Regarding this, a Portuguese player (P12) said: "When I started in futsal with 13 years, I played many times in my category, but also in the superior one. As I became older, I played more and more times on a higher level than on mine."

# Key aspects of training

Participants pointed out several aspects of training that play an essential role in the pathway to the elite. Within this category, seven subcategories were observed and considered in the following order of frequency: psychological (92%), quality and training with better players (88%), video display and physical condition (80%), quantity (16%) and technical tactical aspects (8%).

Almost of the players highlighted the relevance of psychological characteristics (e.g., coping with stress, engagement, motivation, self-confidence, humility and persistence), as a Brazilian player (P22) described:

The psychological aspect has a vital role because currently the psychological influences have a high impact on sports. The pressure is good, but it is also bad. When you feel too much pressure, if the person do not have the psychological aspect very well worked out, or if the person is having any problem at home, or problems in any area of their life, I think it will greatly influence your performance on the pitch. I think the person must be always concentrated. When I go to the pitch, the thought is just on the pitch because any lapse in concentration could cause a defeat for my team.

Other respondents supported the key role of the psychological dimension. An Argentine player (P11) explained that he had seen some very good players at technical level that could be pro players. However, they do not reach the elite because of their lack of psychological skills.

Regarding the ongoing debate about quantity vs quality of training, almost all players highlighted that quality is more determinant than quantity. A Spanish player mentioned that "The quality. Training a lot and without any kind of criteria... is like doing nothing" (P10). Furthermore, a Spanish player

(P19) stated: "Generally the quality, and at specific moments it can be the quantity. Generally, out of 100% of the season, 85% must be quality."

Also, they reinforced the importance of competitivity in the team and the training sessions, by training with better players, as a fundamental issue. A Spanish player (P13) explained: "I think you learn more, if you consider you are at a much higher level than the average, you could settle down. I believe that the better the colleagues, the more you push yourself, day after day, and in the end, you improve."

Players also clearly stated that physical-conditional training and video display are key issues in their development, especially as complements to athlete's preparation.

Also, players mentioned that physical condition is vital for the development of elite players: "I think it's [physical training] an essential complement in the athlete's training." (P18, Spanish). Regarding the value of video display to improve their knowledge about the game and their tactical performance, a Portuguese player (P14) shared:

I think it [video display] is a mental preparation for what you are going to find [in a match]. It helps you to have more knowledge of what could happen. Knowing what type of movements and individual and collective characteristics helps you to stay one-step ahead of your opponent.

In opposition, the great expertise in technical-tactical skills was not identified as important as other aspects of training. An Argentine player (P11) explained: At technical level, it is confused that a good player is a player who plays one for one, or who makes bicycle kick goals or "rabona" passes... He [the participant mentions the name of a player] knows how to do many things that many players are not able to do, but he also does the basics very well. However, there are guys who want to do what he does, that's beyond the reach of many, without doing the basics well. Do you understand? ... the basic thing is to control, guide, pass and shoot, that is the basic... simple things are not easy and one thinks that simple [things] are easy and they aren't. Simple [things] are simple, but making them easy is difficult.

# Retirement and post-career

This category included the participants' future expectations after retiring from futsal as professional players. Within this category, three subcategories were observed and considered in the following order of frequency: Remain associated with the futsal context (64%), managing a business (40%), and resume studies (16%).

Most of the players revealed their intention to remain associated with the futsal context, developing other roles such as sports manager, sports director or coach. For example, an Italian participant (P3) said: "I would like to actively participate in the development of this field." Similarly, another respondent shared his intention to remain associated with futsal: "Anything related to futsal. Trying to give back some of what futsal gave me." (P7, Brazilian player).

Another mentioned prospect by nearly half of the players (43.58%) was to manage a business not related to futsal. A Spanish player (P13) said: "I'd like to set up something [a business] of my own…because I'm studying business administration." Finally, a reduced number of players would like to resume studies that they did not finish before because of their lack of time. A Portuguese player (P14) stated: "When I retire, I'll take some sabbatical months to enjoy my family and continue some courses that during the professional career were impossible to take. I'll evaluate what possibilities may arise from these studies."

#### DISCUSSION

This study aimed to describe the perception of expert futsal players about the pathway that guides their development to expertise. Through a qualitative content analysis, we identified six categories that contribute to explain the career pathway of futsal players to expertise.

The analysis of the category *positive influence of context* allows us to broaden our understanding of the impact of the context and people who influenced players' careers through all stages. In line with previous research, family members and coaches were mentioned as key individuals for futsal players' development, especially in their careers' initial and developmental stages (Bloom, 1985; Côté, 1999).

Additionally, teammates seem to be very influential for many players but only during the process of professionalisation. These findings suggest that while the family is a key factor during the Sampling Years, by supporting and encouraging the practice, coaches contribute later on in the Specialising years to promote goals' achievement and create a good environment that guides players' development. Teammates, for their part, seem to contribute at the Investment Years to promote competitiveness, a good atmosphere, and a motivational climate to improve performance and career development (Keegan, Spray, Harwood, & Lavallee, 2010).

Interestingly, unlike previous research (Bloom, 1985; Côté, 1999), PE teachers were barely identified by players as an important influence on their initiation and development as a player. In fact, some players stated that PE teachers had

a negative influence on their careers. This may be because Futsal is a recent sport not included in the PE curriculum in most countries. An alternative explanation could be the lack of qualification of PE teachers in teaching and training Futsal during their bachelor courses in Universities.

In line with the previous proposals that highlighted the contextual influences on talent development (Davids & Baker, 2007; Hancock, Coutinho, Côté, & Mesquita, 2018), futsal players also pointed out that the Home country, sports development and national recognition of futsal, and the available equipment and economic support contribute to improving and sustaining their goal to be elite players in the future.

Regarding individual skills that characterise a potential futsal player and its development, participants highlighted psychological and personal skills, followed by technical-tactical skills and physical abilities of players. As in previous research, most players emphasised that some psychological abilities, such as coping with stress, engagement, commitment, motivation, self-confidence, humility, and persistence, are decisive in reaching the elite (Sarmento, Anguera, Pereira, & Araújo, 2018). Accordingly, the development of psychological mentoring services from the beginning of the sports career might contribute to the sustainable development of players (Baron-Thiene & Alfermann, 2015; Ekengren, Stambulova, Johnson, & Carlsson, 2020). However, in practice, psychology is a misprised area not only in academies but over the entire career of players.

Regarding technical-tactical skills, players stressed that the capability of youth players to control and pass is essential to start to explore the game. Interestingly, such results were quite different from those observed in soccer, as coaches and scouts usually emphasised the dribbling as the main information for talent identification (Sarmento et al., 2018). Such difference could be related to the specificity and dynamics of soccer and futsal.

Contrary to the trend of research in which anthropometric and physiological factors were the most studied factors in soccer for players identification and development (Williams & Reilly, 2000), futsal players stated that these aspects are not vital for player identification and should only be considered at a later moment of players career development.

The educational background could also be considered an individual factor that characterises a potential futsal player. Participants in our study acknowledged the value of continuing to study during their sporting career and considered that the qualification is advisable to reach the sporting elite. However, as observed in other sports, most players find it difficult to combine studies and sport (Ekengren et al., 2020). Indeed, when players achieve a

demanding process of training and competition tend to focus their attention on improving the aspects related with the sport, developing a great athletic identity that does not allow them to do anything more (Torregrosa, Boixados, Valiente, & Cruz, 2004).

Regarding the sporting life of participants at different stages of talent development, futsal players highlighted that unstructured and informal play with friends, and the practice of other activities are very important for the development of a Futsal player. Previous research in soccer also revealed that involvement in play activities or deliberate sports activities in different contexts is very enjoyable for kids (Baker et al., 2003). Indeed, the unstructured and informal play in the streets and the playground with friends during childhood seems to be a great predictor of high levels of expertise (Roca, Williams, & Ford, 2012). Also, regarding these results, the practice of other sports or activities is very well documented in other sports (Baker et al., 2003; Coutinho et al., 2016) as well as in futsal (Serrano et al., 2013).

The category of the key aspects of training reinforced that psychological aspects of players, quality of training and training with better players were considered key aspects to be successful, particularly in Specializing and Investment years. With less frequency, futsal players mentioned video display and physical fitness as complements to athlete's preparation. In line with previous results, players' commitment to their own career and the definition of goal achievement seems to be a key issue to success (Baron-Thiene & Alfermann, 2015; Ekengren et al., 2020). Also, as other authors argue, it is not required a great number of activities but quality and competitive activities (Coutinho et al., 2016). Players in our study mentioned the need for quality both in the process and in practice. Thus, training with high quality and better players is vital, as it requires constant adaptations and exploration of new possibilities of play (Davids et al., 2017).

To better understand what "quality of practice" means for players, further research should examine the microstructure of practice over different player career stages (Low, Williams, McRobert, & Ford, 2013; Coutinho et al., 2016). The development of different activities associated with visual display, physical conditioning or technical-tactical aspects should be considered in relation to the different stages of players' development. Interestingly, while physical abilities were the last criteria mentioned by players regarding the individual skills of the young player, these abilities were more important in the category of key aspects of training. Therefore, this finding suggests that physical skills are not criteria for identifying potential players but should be considered a key aspect of their development.

Finally, concerning players' retirement perspective, most players showed their intention to remain associated with futsal developing other roles (e.g., sports manager, director, or coach). However, other players would prefer to manage a business or finish their studies. Due to the players' great athletic identity (Torregrosa et al., 2004), few participants in our work finished their studies or developed other activities during their careers. Due to the great amount of emergent professional competitions worldwide, further analysis of career retirement is required to know better the preparation of players for their post-futsal life (Monteiro et al., 2020). This analysis could anticipate possible transition problems in the near future (Carapinheira et al., 2018). The development of mentoring support could contribute to sustaining players' development and their transition into a professional career after sport (Hallmann, Breuer, Ilgner, & Rossi, 2020).

To the best of our knowledge, the present study is the first attempt to explain the pathway that supports the career development of futsal players to expertise. All participants came from the top 10 best ranking countries in Futsal in this research. Interestingly, participants from different countries did not reveal so many differences in their perception of the aspects that could contribute to the support of futsal players' careers. Considering the results obtained, those people in charge of the developmental process of young futsal players must give importance not only to technical-tactical skills but also to psychological and personal aspects (motivation, self-confidence, determination), as they have been shown as the most relevant for a player to reach the elite.

Despite the strengths, these findings must be considered despite some limitations. One limitation was the language, as participants were from different nationalities and all the interviews had to be translated into English for codification. Furthermore, only three Argentine players participated in this study, while the subsample of the other nationalities (i.e., Spanish, Italian, Portuguese, and Brazilian) were composed of five futsal players. Finally, we should mention the difficulties of accessing this sample, as it comprises elite players.

It would be valuable to further conduct a multicultural approach to explore how the level of practice of each country contributes to the development of different paths to the expertise. Also, further research with coaches should be considered to compare the perspectives between players and coaches.

#### CONCLUSIONS

This study revealed that expert futsal players from different countries have similar perceptions about the pathway that guides youth futsal players' development to expertise. Regarding the influence of context, family, coaches, and teammates are crucial to the players' career development. Furthermore, home country futsal development contributes to sustaining their goal achievement. This study also showed that psychological and personal skills, followed by technical-tactical skills, are the most important characteristics of a futsal player. Regarding sporting life, it appears that unstructured and informal play is very important for the development of a futsal player. Also, during their process of becoming professional players, the quality of training and training with better players seem to be key aspects of success. Finally, concerning players' perspectives of retirement, it has been seen that most players have the intention to remain associated with futsal. Such information is paramount for futsal coaches and academies to adjust their long-term development models.

#### REFERENCES

- Baker, J., Cote, J., & Abernethy, B. (2003). Sport-specific practice and the development of expert decision-making in team ball sports. *Journal of Applied Sport Psychology, 15*(1), 12-25. https://doi.org/10.1080/10413200305400
- Baker, J., Schorer, J., & Wattie, N. (2018). Compromising talent: Issues in identifying and selecting talent in sport. *Quest*, 70(1), 48-63. https://doi.org/10.1080/00336297.2017.1333438
- Baron-Thiene, A., & Alfermann, D. (2015). Personal characteristics as predictors for dual career dropout versus continuation—A prospective study of adolescent athletes from German elite sport schools. *Psychology of Sport and Exercise*, 21, 42-49. <a href="https://doi.org/10.1016/j.psychsport.2015.04.006">https://doi.org/10.1016/j.psychsport.2015.04.006</a>
- Battochio, R. C., Stambulova, N., & Schinke, R. J. (2016). Stages and demands in the careers of Canadian National Hockey League players. *Journal of Sports Sciences*, 34(3), 278-288. https://doi.org/10.1080/02640414.2015.1048523
- Bloom, B. (1985). Developing talent in young people. Ballantine Books.
- Carapinheira, A., Torregrossa, M., Mendes, P., Carvalho, P. G., & Travassos, B. (2018). Perception: a retrospective analysis of career termination of football players in Portugal. *Motricidade*, 14(4), 74-85. <a href="http://dx.doi.org/10.6063/motricidade.14982">http://dx.doi.org/10.6063/motricidade.14982</a>
- Collins, D., & MacNamara, Á. (2012). The rocky road to the top. Sports Medicine, 42(11), 907-914. https://doi.org/10.1007/BF03262302
- Côté, J. (1999). The influence of the family in the development of talent in sport. The Sport Psychologist, 13(4), 395-417. <a href="https://doi.org/10.1123/tsp.13.4.395">https://doi.org/10.1123/tsp.13.4.395</a>
- Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using retrospective interview methods: A proposed interview and validation procedure for reported information. *Journal of Applied Sport Psychology, 17*(1), 1-19. https://doi.org/10.1080/10413200590907531
- Coutinho, P., Mesquita, I., & Fonseca, A. M. (2016). Talent development in sport: a critical review of pathways to expert performance. *International Journal of Sports Science & Coaching*, 11(2), 279-293. https://doi.org/10.1177/1747954116637499
- Davids, K., & Baker, J. (2007). Genes, environment and sport performance. Sports Medicine, 37(11), 961-980. <u>https://doi.org/10.2165/00007256-200737110-00004</u>

- Davids, K., Güllich, A., Shuttleworth, R., & Araújo, D. (2017). Understanding environmental and task constraints on athlete development: Analysis of micro-structure of practice and macrostructure of development histories. In J. Baker (Ed.), Routledge handbook of talent identification and development in sport (pp. 192-206). London: Routledge.
- Ekengren, J., Stambulova, N., Johnson, U., & Carlsson, I. M. (2020). Exploring career experiences of Swedish professional handball players: Consolidating first-hand information into an empirical career model. *International Journal of Sport and Exercise Psychology*, 18(2), 156-175. <a href="https://doi.org/10.1080/1612">https://doi.org/10.1080/1612</a> 197X.2018.1486872
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, *62*(1), 107-115. <a href="https://doi.org/10.1111/j.1365-2648.2007.04569.x">https://doi.org/10.1111/j.1365-2648.2007.04569.x</a>
- Gulbin, J., Weissensteiner, J., Oldenziel, K., & Gagné, F. (2013).
  Patterns of performance development in elite athletes. European Journal of Sport Science, 13(6), 605-614. <a href="https://doi.org/10.108">https://doi.org/10.108</a>
  0/17461391.2012.756542
- Güllich, A. (2018). Sport-specific and non-specific practice of strong and weak responders in junior and senior elite athletics—A matched-pairs analysis. *Journal of Sports Sciences*, 36(19), 2256-2264. https://doi.org/10.1080/02640414.2018.1449089
- Güllich, A., Kovar, P., Zart, S., & Reimann, A. (2017). Sport activities differentiating match-play improvement in elite youth footballers—a 2-year longitudinal study. *Journal of Sports Sciences*, 35(3), 207-215. https://doi.org/10.1080/02640414.2016.1161206
- Hallmann, K., Breuer, C., Ilgner, M., & Rossi, L. (2020). Preparing elite athletes for the career after the career: the functions of mentoring programmes. Sport in Society, 23(7), 1217-1234. https://doi.org/ 10.1080/17430437.2019.1613375
- Hancock, D. J., Coutinho, P., Côté, J., & Mesquita, I. (2018). Birthplace effects: is it population size or density? *Journal of Sports Sciences*, 36(1), 33-38. https://doi.org/10.1080/02640414.2016.1276614
- Keegan, R., Spray, C., Harwood, C., & Lavallee, D. (2010). The motivational atmosphere in youth sport: Coach, parent, and peer influences on motivation in specialising sport participants. *Journal of Applied Sport Psychology*, 22(1), 87-105. https://doi. org/10.1080/10413200903421267
- Low, J., Williams, A. M., McRobert, A. P., & Ford, P. R. (2013). The microstructure of practice activities engaged in by elite and recreational youth cricket players. *Journal of Sports Sciences*, 31(11), 1242-1250. https://doi.org/10.1080/02640414.2013.778419
- Monteiro, R., Monteiro, D., Nunes, C., Torregrossa, M., & Travassos, B. (2020). Identification of key career indicators in Portuguese football players. *International Journal of Sports Science & Coaching*, 15(4), 533-541. https://doi.org/10.1177/1747954120923198
- Roca, A., Williams, A. M., & Ford, P. R. (2012). Developmental activities and the acquisition of superior anticipation and decision making in soccer players. *Journal of Sports Sciences*, 30(15), 1643-1652. https://doi.org/10.1080/02640414.2012.701761
- Sarmento, H., Anguera, M. T., Pereira, A., & Araújo, D. (2018). Talent identification and development in male football: A systematic review. Sports Medicine, 48(4), 907-931. https://doi.org/10.1007/ s40279-017-0851-7
- Serrano, J. M. P. R., Santos, S. D. L., Sampaio, A. J. E., & Leite, N. M. C. (2013). Sport initiation, early sport involvement and specialization in futsal training in Portugal. Motriz: Revista de Educação Física, 19(1), 99-113. https://doi.org/10.1590/S1980-65742013000100010
- Sosniak, L. A. (2006). Retrospective interviews in the study of expertise and expert performance. In K. A. Ericsson, P. J. Charnes, R. R. Feltovich (Eds.), *The Cambridge handbook of expertise and expert performance* (pp. 287-301). Cambridge: Cambridge University Press.

- Stambulova, N. B., & Wylleman, P. (2019). Psychology of athletes' dual careers: A state-of-the-art critical review of the European discourse. *Psychology of Sport and Exercise*, 42, 74-88. <a href="https://doi.org/10.1016/j.psychsport.2018.11.013">https://doi.org/10.1016/j.psychsport.2018.11.013</a>
- Torregrosa, M., Boixados, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of retirement: the way to relocation in sport. *Psychology of Sport and Exercise, 5*(1), 35-43. <a href="https://doi.org/10.1016/S1469-0292(02)00052-3">https://doi.org/10.1016/S1469-0292(02)00052-3</a>
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences, 15*(3), 398-405. https://doi.org/10.1111/nhs.12048
- Williams, A. M., & Reilly, T. (2000). Talent identification and development in soccer. *Journal of Sports Sciences*, 18(9), 657-667. <a href="https://doi.org/10.1080/02640410050120041">https://doi.org/10.1080/02640410050120041</a>
- Woods, C. T., Joyce, C., & Robertson, S. (2016). What are talent scouts actually identifying? Investigating the physical and technical skill match activity profiles of drafted and non-drafted U18 Australian footballers. *Journal of Science and Medicine in Sport, 19*(5), 419-423. https://doi.org/10.1016/j.jsams.2015.04.013
- Wylleman, P., & Rosier, N. (2016). Holistic perspective on the development of elite athletes. In M. Raab, R. Seiler & A. Hatzigeorgiadis (Eds.), Sport and exercise psychology research: from theory to practice (pp. 269-288). Academic Press.

