

A Qualitative Investigation of Successful Junior-to-Senior Transitions in Elite Athletes

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Transitions are widely acknowledged as pivotal points in the development of athletes during their athletic career. The aim of this study was to explore the athletes' transition experiences towards elite level, identifying the challenges they faced, and examining the key determinants that enabled their successful adjustment. Semi-structured interviews were conducted with six elite male athletes representing a range of sports and talent development environments across Greece and the UK. Athletes described the importance of deliberate play activities and diverse early engagement, commitment, and high aspirations, while also highlighting organizational factors such as quality of coaching and access to facilities. Key challenges included injuries, balancing sport with studies, and coping with increased pressure, with successful adjustment underpinned by resilience, perseverance, and strong support networks. Intentional use of structured challenges by coaches was reported as a critical developmental mechanism, enabling athletes to develop coping skills and be better prepared for elite sport. The findings highlight common determinants of effective transitions across sporting contexts, suggesting that talent development programs should prioritize psychological preparation, structured support, and proactive exposure to developmental challenges.

Keywords: talent development, transitions, elite sport, senior level, success

Introduction

Transitions are critical periods in an athletic career and are often characterised by both opportunities and challenges that influence the long-term development, performance, and overall well-being of athletes (Henriksen et al. 2024, Stambulova et al. 2020). Transitions can be divided into normative (predictable), non-normative (unpredictable), and quasi-normative (predictable for certain groups), each presenting distinctive challenges and requiring individualized support (Stambulova 2016). Transitions may take place in different contexts such as junior-to-senior (JST), amateur to professional, moving between different teams or even cultures. Inevitably, such periods (particularly during the JST) involve demands and challenges in various areas; not only athletic level but also psychosocial, academic/vocational, and personal level (Wylleman et al. 2013). Challenges during these periods may include increased physical and psychological demands, social adjustments, risk of deselection, or

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injury, all of which can affect motivation, performance, and well-being (Morris et al. 2017, Wylleman et al. 2013). Dealing successfully with the challenges of the transitions is essential to progress to higher levels of competition at senior level. The mechanisms underpinning effective adjustment are complex and multifaceted, incorporating personal, psychosocial, and environmental factors that require further investigation in sports.

Findings have highlighted the crucial role of psychological characteristics in relation to long-term success in sports. For instance, psychological characteristics of developing excellence (PCDEs) have been identified in the literature as predictors of successful adaptation in high-performance contexts (MacNamara et al. 2010). Specifically in recent studies, attributes such as resilience, self-confidence, focus, and adaptability were shown to facilitate the progression of athletes during transition periods. Those attributes are key in the transition process as they allow athletes to cope with the increasing demands (Wixey & Kingston 2023). Interestingly, those characteristics are not necessarily considered as innate but are viewed as qualities that can be nurtured to support the development and progression of athletes (Collins et al. 2016). In addition, mental health and well-being have gained increasing attention, and theoretical frameworks have been created to support athletes' psychological health during the transition to elite level (Pilkington et al. 2024). This approach shows a wider shift in sport towards a more holistic understanding of development and performance, where psychological safety and well-being are equally important as tangible achievements in the athletic journey towards success.

Beyond individual characteristics, the environment in which athletes operate and develop plays an integral role in influencing the outcomes of a transition. Findings have highlighted that support networks and significant others are of paramount importance in facilitating the effective progression of athletes during transitions (Andronikos et al. 2024). These may include family members, coaches, teammates/peers, and support staff, who can offer invaluable support while dealing with the demands of a transition (Brockett et al. 2024). In line with the idea that success incorporates achievements and mental well-being, these support networks can provide both tangible support and emotional support, cultivating a holistic athlete development approach during transitions. Tangible support includes training opportunities, structured guidance, career advice, financial assistance, or logistical help, such as travel or accommodation for competitions. Emotional support includes encouragement, reassurance, social inclusion, a sense of belonging, and moral support during setbacks. The quality and the perceived availability of this support network can influence whether athletes interpret challenges as growth opportunities or as threats to their progression leading to stress, anxiety, or even dropout (Rees et al. 2016).

Due to the complexity of the transition process, further research in this area is necessary to allow us to understand the appropriate resources and support required for career transitions. Recent findings have shown that amongst the strongest predictors of adjustment during the JST were personal resources, environmental support, and type of sport (Andronikos et al. 2021). Thus, exploring the transition and development experiences of successful athletes allows us to identify individual and environmental characteristics that facilitated their successful JST. Examining both individual and team sport athletes that were nurtured in different talent development environments

within different countries gives us an opportunity to distinguish common, generic features related to effective development. When examining experiences, it is essential to use a methodology that will enable the researcher to capture the perspective of the person who experienced it (Vaismoradi et al. 2013). Therefore, it is not surprising that a qualitative approach is usually preferred regarding when analysing within-career transitions.

Despite the growing body of literature on athlete development, limited research has explored elite athletes' subjective experiences of transitions, particularly the interrelation between developmental experiences, psychological characteristics, and support systems. This study aims to address this gap by describing the transition experiences of elite-level athletes from their own perspectives, identifying the challenges they faced, and examining the key determinants that enabled successful progression towards senior elite level. Insights from these experiences can inform the design of talent development programs that foster long-term athlete development and well-being.

Methodology

Participants

To understand the elements that facilitate a successful JST it was necessary to ensure that all participants had successfully transitioned into senior level elite sport; demonstrated by competing at the top level of their sport for their country. This criterion ensured participants had not only transitioned successfully but also sustained a career at elite senior level. There have been a great number of definitions of 'elite' athlete in sport (psychology) research and therefore a systematic review created a classification system (Swann et al. 2015). In line with this, all participants were classified as 'successful elite' or better according to the framework suggested by Swann et al. (2015). In total six participants (three British and three Greek) were purposefully selected as information-rich cases who had successfully transitioned to elite senior level. This number was considered adequate for the depth of analysis required and consistent with qualitative research recommendations emphasizing data saturation rather than large samples (Smith 2018). The group included four footballers, one judoka, and one track-and-field sprinter. All had competed at the highest national and international levels, as detailed in Table 1.

Table 1 *Participants*

Participant	Age	Nationality	Gender	Sport	Achievements
1	32	Greek	Male	Football	Greek Cup winner, Greek super league winner, Participation in Europa league and Champions league, 150+ appearances in top division
2	24	Greek	Male	Football	Representation of the U21 national team, 50+ appearances in the top division.
3	23	British	Male	Judo	Silver medalist in world cup event, representation at the U21 national team.
4	24	British	Male	Track and field	Bronze medalist in World cup event, participation in commonwealth games
5	21	British	Male	Football	Representation at U15, U17, U19, U21 national teams, 50+ appearances in the Premiership.
6	26	Greek	Male	Football	Representation of the U21 national team, Greek cup winner, participation in Europa league, 100+ appearances in the first division

Procedure

The researcher applied for and received ethical approval for the study from the Research Ethics and Governance Committee. All the participants were informed that it was not compulsory to take part in the study, and they would be able to withdraw from the study at any moment. All data were anonymized, confidential, and stored in a password-protected computer accessible only to the lead researcher. The interview guide was sent in advance to allow reflection, which has been shown to elicit richer responses (Burke & Miller 2001, Martindale et al. 2007). The interviews lasted approximately one hour and were recorded and transcribed verbatim. Pilot interviews were conducted with two professional track and field athletes. Feedback from the pilot interviews informed refinements to the interview guide, including reordering questions to improve flow and revising unclear wording. A qualitative approach gives the participants the opportunity to share information and experiences regarding the phenomenon being studied and probes allow researchers to further examine areas related to the research objectives (Berg 2004, Guest et al. 2013). Use of neutral and impartial position when probing participant responses, combined with the build of rapport (Patton 2002) were used to guide the interviewer away from biasing the responses of the participants (Backstrom & Hursch-Cesar 1981).

Interview Guide

To maximize the chances of gaining a complete picture of the nature of the JST, a semi-structured interview was developed, consisting of nine open-ended questions (Patton 2002). This approach was chosen to allow flexibility when exploring areas that may emerge during discussions with the participants (Rynne et al. 2010, Nash et al. 2011). Details of the interview guide are presented in Table 2. In addition to the interview questions, follow-up probes were used for clarification and further discussion to obtain consistency in the depth of responses across participants (Patton 2002).

Table 2. *Main Questions used in the Semi-structured Interviews with the successful Athletes*

1. Can you describe your current situation in sport?
2. Could you describe your career within sport until now?
3. Which were the pivotal points and main challenges throughout your career?
4. When did you consider yourself to be 'elite'? What facilitated that change? How does this change over time?
5. Is the process towards 'elite level' the same for everyone?
6. From your personal experience can you give us examples of talented athletes that did not reach their best potential? Why did this happen?
7. What characterizes someone who has the potential to become elite? How does this change over time?
8. Which are the goals for your future steps in your career?
9. What elements do you think can facilitate development and/or remove barriers?

Data Analysis

Interviews were analyzed thematically following Braun and Clarke's (2006) six-step framework. The researchers familiarized themselves with the transcripts, generated initial codes, and searched for themes. Themes were refined, named, and supported with participant quotes in the results section. Analysis continued until no new themes emerged. To enhance rigor, reliability checks were conducted in collaboration with a senior researcher (Patton 2002). Bi-weekly debriefing sessions were held to review codes and themes, minimizing bias and ensuring interpretations were grounded in the data (Shenton 2004). The primary researcher led the analysis, with the senior researcher acting as a critical peer reviewer until agreement was reached.

Results

This section presents data according to the main themes identified by the analysis of the interviews: 1) development process, 2) challenges, 3) characteristics of successful talent development environments, and 4) individual determinants of success.

Table 3. *Characteristics of the Development Process, Challenges and Key Determinants for a Successful Transition to Elite Level*

Main Theme	Subthemes
Development Process	Early steps Development years Mastery stage
Challenges	Injuries External pressure Balancing academic/vocational career with sport Performance related challenges Distractions
Characteristics of Successful Talent Development Environments	Support Network Holistic approach Intentional structured challenge
Individual Determinants of Success	Performance related characteristics Psychological characteristics

Development Process

Early Steps

The athletes initially got involved in sport to have fun, enjoy themselves and socialize with their peers. They were all involved in deliberate-play activities such as ‘backyard’ football and tried several different sports early in their development. This initial involvement acted as a trigger for them to understand their potential, try harder to improve, and seek opportunities for more organized activities.

I started playing football when I was a kid, the same as everyone else in the alleys and when I realized that this is what I wanted to do I asked my parents to join an academy.
Participant 2

I started just to have fun and do something enjoyable in my free time as a kid and then when I saw that I had the potential to compete at a higher level I started thinking about football more seriously...
Participant 1

Participants also described that the coaches need to promote enjoyment and fun during the early steps of development since this can increase the motivation of athletes. Consequently, young athletes are more likely to stay involved in sport and engage more seriously by trying harder to get better.

The coach needs to make it fun for them at that young age. They need to be enjoying it and then with that enjoyment as they grow older, they will start to try that bit harder.
Participant 4

Some of the athletes participated in a variety of sports before deciding in which sport they wanted to focus. Other reasons besides actual performances at that time

led athletes to choose their sport. Based on the descriptions of the participants, they had a free choice (without external pressure) to choose the sport they wanted to focus on.

...when I was 7-8 years old, I was doing 5-6 different sports. When I got older because of school I had to stop some of them and finally I was between tennis and football. I liked playing a team sport because I was socializing with more people, so I chose football.

Participant 6

Development Years

At this stage of their development, athletes described that they made a conscious decision to excel. Participants described having high aspirations during the development age (>12 years old). Constantly progressing regardless of failures or disappointments was identified as key by these successful athletes. Participant 2 shared that ‘...when you love what you do you don’t have a limit...’

...it doesn’t matter how many times I fail as long as I know that I am still improving, I am still working towards this end goal.

Participant 3

Interestingly, participants reported that being committed, staying focused on your target, adopting a healthy lifestyle and being consistent in training, nutrition and recovery is more likely to determine the success of an athlete than technical or physical ability.

You might not be so consistent in terms of your timetables, your nutrition, your obligations, your training and all these factors play a significant role...

Participant 1

According to the athletes, a combination of a healthy lifestyle, commitment/consistency, high aspirations and the mentality of continuous improvement represent the conscious decision to excel during the development stage. Nevertheless, athletes highlighted that the development pathway is idiosyncratic. For some people, it is smoother while others have to overcome multiple obstacles.

Everyone has different barriers. Mine have been pretty smooth other than a couple of injuries. Other people have probably had maybe transport issues, maybe their only coach has been in one area and they can’t get there, so I can see that preventing people from developing. I would say it is different for every single person. It is not a smooth run for everybody.

Participant 4

Mastery Stage

Athletes described that the transition to mastery stage may incorporate a combination of sport-specific normative transitions such as amateur to professional level, JST and pre-elite to elite level. Athletes reported that working in a professional environment, even if it was at junior level, was very helpful for their future development. Others started participating at senior level when they were relatively

young which gave them the opportunity to gain experience, understand the expectations at senior level and get prepared to cope with the upcoming increasing demands of elite senior level in sport.

...to a team that worked in a professional way even if I was playing for the youth team because I learned football in a different way compared to how you learn it in an amateur team.

Participant 6

At the age of 15 I started competing in adult level in a local team and after playing for two years at the age of 17 I started competing in semi-professional level. I played for two years in the 4th division, after this, I played for one year at a team in the third division and I was constantly improving so I moved towards elite level. Then I played for two years in the second division and now I am at a very popular club in Greek Superleague.

Participant 2

It was reported that an achievement during that stage can increase the motivation of athletes and inspire them to try harder to be successful. Winning a U21 championship was the trigger for one of the participants to realize his true potential, commit and work hard to become an elite senior athlete.

...when I was 19 years old, I won the U21 British championships, and that was kind of a springboard into my judo career, because I realized that I could achieve something and from then I started to take judo a lot more seriously...

Participant 3

Steady progress and playing time at senior level were the key elements that facilitated a successful transition towards elite senior level according to the majority of the participants. Data showed that progressing to elite senior level at a fast pace may be detrimental to the future career of youth athletes. Athletes described that gradual, steady progress should be prioritized because rapid advancement may have the opposite effect to the one intended.

They need to practice every day and work hard every day and with slow but steady steps to reach their best potential.

Participant 2

The transition from junior to senior level needs to be made at a normal pace, step by step - not go from the first step to the tenth because usually, you fall.

Participant 6

Furthermore, playing time at senior level was also recognized as a prerequisite for a successful transition to senior level. Participants explained that in order to prove their playing ability and gain playing experience playing time is needed. Only training with the senior team or playing a few games per year is not enough for the athletes to get prepared for the demands they have to face as senior athletes.

Playing one game per year and playing 30 is a big difference. That year gave me the opportunity to play consistently, and I showed that I can play at this level.

Participant 6

Challenges

Injuries

Participants reported that injuries can affect them both physically and psychologically which eventually may even lead to drop out. Thus, they proposed that rehabilitation period is crucial, and that medical staff, support from family, and coaches are essential. However, they suggested that unfortunately in some cases, injuries can be the main reason that athletes do not reach their best potential or simply drop out.

There are a few athletes that I know have dropped out simply because of injury. They have been getting the same injury over and over again and then they don't do the right rehab all the time, they never really recover from it.

Participant 4

Some of the athletes may have injuries which can affect their psychology in a negative way and make them drop out.

Participant 2

On the other hand, an injury can be beneficial according to athletes who described becoming wiser and managing to reach the same or even higher level of performance after an injury. Essentially, athletes recognized this difficult period in their career as a learning process. As such, it is how someone responds to challenge that appears to be the key.

I had an injury and for sure it made me wiser and it was a difficult period of my career. You need to stay calm in many situations such as an injury and work to recover in order to reach the level you were before.

Participant 6

External Pressure

The existence of potential external pressure from fans or the media was highlighted by the participants. Athletes agreed this pressure is something that they need to learn to manage, as it can have a negative impact on their performance.

...to play in front of the fans and see what it is like. When you play with the youth teams you are not experiencing anything like that.

Participant 5

We are a country [Greece] that has 15 newspapers, 500 websites and 10 radio stations with sport content. So every day there is some tension around football...

Participant 1

Balancing Academic/Vocational Career with Sport

Four of the six participants found it challenging to combine work/studies with sport. Athletes highlighted prioritization as key to balancing sport with work or study. Prioritization of different tasks according to the needs of each period is essential for athletes to achieve their goals in sport, studies and work. Athletes believe that available support within the school and from the team/coach was very helpful because it can increase their chances of meeting their goals and staying committed to their sport.

I would go to school on a Wednesday and because I was only doing two subjects I was catching up on both during the week and the teachers helped me a lot and got me through it. Then I passed both my exams, but it was quite hard to play football and do the Highers as well.

Participant 5

Athletes reported that prioritizing was the key factor that enabled them to successfully combine a career in sport while working or studying. Setting specific goals depending on the needs and the expectations of either academic/vocational or sport career enabled them to combine both. This strategy resulted in favoring either sport or studies/work at certain periods of the year. For this to happen, support and understanding from the coaches/team were essential. Athletes needed their coaches' support for their life choices, because they are not only athletes but also people with their own wishes and targets outside sport.

...so as a junior, when I was younger, it was balancing my school, my social life, and my training and now I am a university part-time, so I have to balance my university work alongside training full time and earning money to pay my rent. So, at different times of the year, different things take priority.

Participant 3

Everybody will favour one or the other. At some time like this time last year, I probably favoured my training a lot more because I had things to aim for. I wanted to achieve things that year whereas now it is the other side. I have got an honours degree to try to complete so it is the complete opposite, but my coach is completely 110% behind me.

Participant 4

Performance Related Challenges

According to participants' opinions, the biggest performance-related challenge was to stay at elite level. Some of the participants (1 and 6) had to make hard decisions for their careers to eventually return to elite level after having a performance decrease or being dropped by their teams. Athletes competed with lower-level teams or even lower division teams to get playing time, build up their confidence and finally return to elite level.

Then I took the decision to leave, and I went to a weaker team to have some playing time and gain confidence which is what happened in the next two years.

Participant 1

The biggest challenge was to stand up again after spending a year in obscurity [lower division teams] and PP [Super league team] was a step for me to come back to elite level.

Participant 6

Distractions

Potential distractions such as nights out, hanging out with friends or playing video games were also discussed by the participants. Being committed and focused to their goals seems to be the key to avoiding those potential distractions. However, at certain times those distractions can relieve pressure which highlights the need to consider individual circumstances before identifying good and bad practice.

Whilst some of my friends would spend night after night just kicking a football around with a friend or going out drinking or with their play stations, I had a focus, and I had like the direction in where I wanted to go in my life.

Participant 3

Stay focused on what you are doing and don't get distracted from nights out, coffees, journalists, women. Everything in balance.

Participant 1

Characteristics of successful Talent Development Environments

Support Network

Athletes identified that a support network from people from the close environment is the basis for effective development since athletes need to rely on certain people that they trust, and they need this extra 'push' when things are not going well. It was suggested that without this social support the pathway to elite level can be more difficult for athletes. According to the participants' view, significant others can support emotionally during tough times, but they can also bolster their confidence while dealing with stressful situations.

you really just have to rely on the people around you. When I was back at home, I had the full support of my friends and my family, and they were really supportive. Now I am up in EE by myself, but I have a girlfriend, so she is my support network and I have a good few friends who help me and a coach who I trust.'

Participant 3

I would say a lot of the time, my family came into it. Because they are very, very supportive. I would say them being on my back all the time, sort of, is a blessing in disguise...that level of support which when you are having tough times, when you are facing barriers, that it allows you to have someone to be by your side and give you that support to keep going and keep driving through it.

Participant 4

Experts (e.g., coaches, physiotherapists, psychologists) are essential pieces of a successful environment at elite level and athletes acknowledged this. Receiving the support from people who are experts in their field can help athletes pay attention to

detail and enhance their performance. Providing athletes with guidance regarding possible solutions to a problem or providing them with the necessary resources to cope with stressful situations is of paramount importance according to the participants.

The coaches influenced my development in a good way; if you have a good coach, you acquire a good mentality as well. My coach was my second father for me personally.

Participant 2

I believe a sport psychologist is essential in a team especially after the age of 15 because athletes may need to speak with a sport psychologist and express some issues that may bother them which can help them perform well.

Participant 6

It was reported that role models and more specifically elite level teammates can also provide support and help athletes become better especially in terms of building their character based on professional elite level standards. By acting as a good example, they can inspire youth athletes and enable them to understand what it takes to be elite.

It helped me very much the fact that I was training with the senior team of OO [Super league team] for a year and a half because my teammates were elite level players who had played in Champions league. This helped me build my character.

Participant 6

Holistic Approach

The value of maintaining a skill focus development instead of being results-oriented was highlighted by the participants. Winning at young ages does not necessarily mean that an athlete is skillful or has the potential to be successful. Success could be a result of a physical advantage at that time. Therefore, improving technique and skills aiming to be successful in the long-term is suggested to be advantageous for youth athletes.

I would say people not being medal orientated at a younger age, the best way to get to elite level is to not be focused on results. Not be result orientated. I feel if you are results orientated too early you will only focus on how to win at that time.

Participant 3

Constantly progressing is the philosophy that will increase the possibilities for a youth athlete to make a successful career at elite senior level. In addition, having clear and achievable goals is useful for athletes because it keeps them committed at all times.

He [the coach] always told me that it didn't matter, we were always developing for the future, and it is ok, as long as each time I competed I could show that I had improved a little bit, and what we were working on I was putting into practice, he was OK. So he said the results will come and as long as I keep putting in the hard work and keep trying to improve, eventually the results will come.

Participant 3

Athletes stated that an environment that promotes healthy competition is of paramount importance because it challenges athletes to get better. This can be a mechanism to get the most out of the athletes in every training session.

Every day is a competition we are in. I have a good friend in my training partner, and we are both in the same weight category, but everything is a competition. If we lift weights in the gym, who can lift the heaviest weights that day, if we have conditioning, who can do it for the fastest or for the longest? If we have a judo fight it is obviously who can throw each other the most, every single day. Even in training is competition which means that we constantly push ourselves to get better and better as well as having to support each other as well.

Participant 3

Education was also described as essential for the development of elite-level athletes. More specifically athletes highlighted that family should instill the right principles from an early age and promote healthy competition. Significant others should be educated regarding the needs, expectations and long-term goals of the athletes to empower the support network instead of creating obstacles due to lack of knowledge.

To begin with my family for sure, this is where it all begins. They gave me the right principles and they taught me to compete in a healthy way.

Participant 2

I think education of people supporting the athlete is very important. If you educate the parents or the support system, especially when you are younger it will allow you to maximise the child's potential.

Participant 3

Furthermore, a caring environment based on the values of trust and honesty to make athletes feel satisfied should be in place because, according to the participants, their wellbeing is linked with their performance.

When athletes want to be a professional in any sport the environment needs to make them happy, make them feel close with everyone and be happy to work hard.

Participant 2

Participants described that during their careers, challenges helped them to improve weaknesses. More specifically, learning to deal with disappointment and defeat is an important lesson for young athletes. Losing time after time can make an athlete understand this the hard way. However, if the coach is next to the athlete to support and instill values such as hard work, perseverance instead of letting the athletes get upset for losing this challenge can be beneficial. This scenario could be a structured challenge (competing against stronger opponents) to achieve the desired outcome which in that case would be to learn to deal with defeat/disappointment. Additionally, having teammates with the same mindset can be helpful since they push each for the greater good always within the limits of healthy competition.

I have seen many talented persons come and go because they don't have the psychological drive or toughness to reach the top. I believe that it is something that you instil in someone from a young age. So, it is kind of like tough love. I believe it is mostly through tough love and having a good group of people around you who are also, like-minded. If everybody is trying their hardest it means you push each other.'

Participant 3

On the other hand, when things are going too easy for young athletes, they lack the ability to deal with disappointment, and they are more likely to drop out when the demands are higher and the challenges numerous. Therefore, even losing can be a learning process and a very important one. Dealing with disappointment/defeat was described as a key characteristic for effective development especially when athletes face multiple challenges.

...people who get it easy, struggle when things get difficult. There are a few people who I know that instead of pushing through they just quit. They were so used to winning. I think that is a major factor.

Participant 3

Another structured challenge reported by a participant was related to being given a senior debut at a young age. This strategy can provide a clear picture of the expectations at the elite senior level and empower the desire of athletes to improve and reach elite senior level.

It was a very big step for the manager to give me a shot in the first team that young. It kind of helped me and showed me what is there to have if I really want it that badly, if I put in the work...

Participant 5

Individual Determinants of Success

Performance Related Characteristics

Athletes highlighted the importance of appropriate recovery, and they linked poor recovery with injuries and poor fitness. Interestingly, participants shared that athletes should be responsible for their recovery and take care of their bodies to be in the best possible condition for training and competitions.

I feel that that is probably one of the reasons why injuries occur. I see it in so many different athletes where they don't recover as they should and they don't use the correct methods

Participant 4

I had teammates who were coming at training 5 minutes before it started and were leaving always first thinking about the coffee afterwards without caring about recovery and how they could enhance their fitness. We are talking about professional level. Athletes should give much attention to their recovery and their preparation.'

Participant 1

As participant 3 specifically described, physical attributes and sport abilities can facilitate the pathway towards elite level. Nonetheless, it was suggested that this would not be possible without having the drive and the mental toughness required to reach elite level.

You do need some kind of sporting natural ability and physical attributes because everybody who reaches the top, whether they are great or not, has some deep sporting ability. However, I have seen many a talented person come and go because they don't have the psychological drive or toughness to reach the top.

Participant 3

Psychological Characteristics

All the athletes highlighted that the most important elements that will enable an athlete to reach the elite senior level are psychological characteristics such as hard work ethic; perseverance; self-reflection; coping with disappointment; self-confidence; and coachability. All the participants agreed that these elements are the ones that make the difference for someone who wants to become elite. According to the athletes, having a hard work ethic means always giving your best efforts and having the drive to excel. Athletes also described that attending training with consistency while constantly trying to get better is a cornerstone of the hard work ethic.

Consistency, desire and a strong personality. If someone combines these characteristics the success is guaranteed if there are no injuries.

Participant 1

But on top of everything else, there is just the will to work hard and push yourself. There is nobody at the very top of any sport who hasn't pushed themselves to the point of being sick, or crying, you have to be able to push yourself

Participant 3

In addition, being committed to a specific target and having the perseverance to do their best no matter what obstacles they may face were highlighted by the participants. Whether it is an injury or failure or not being picked for the team, athletes need to stay committed and be totally determined to overcome the difficulties that have arisen.

You need to be resilient and never give up; you need to keep trying no matter what difficulty you may face. This is a determinant for an athlete to continue within the sport and reach their best potential. I realized that I can be a professional footballer because I was working daily and never gave up.

Participant 2

Participants described that sometimes they need to self-reflect and be aware of their strengths and weaknesses to enhance their performance. Reflection combined with the ability to use a problem-solving approach when facing difficulties is a toolbox for athletes to eventually overcome those difficulties. Those two characteristics can facilitate the personal development of athletes and enable them to reach their personal goals.

...You may have some moments that you think about your mistakes and what you need to improve. You need to think to find a way to react and eventually improve through hard work.'

Participant 2

Furthermore, athletes distinguished the ability to cope with pressure and disappointment. If an athlete learns how to deal with pressure, difficulties and disappointments it is likely that they will become resilient throughout the process. This characteristic should be instilled in young athletes since it is an element that will enable them to progress further in their careers. The difficult moments will be much more than the happy moments in sport; therefore, athletes need to be able to cope with failures and disappointments to finally reach elite level.

You need to be mentally tough. The failures are more than the successes. The disappointments are more than the happy moments, but the joys are so strong that this is what you remember in the end.

Participant 6

So that is one major challenge, is dealing with disappointment over and over again but having the self-belief to know that you will eventually achieve what you need.

Participant 3

As described by participant 3 above, the athletes always believed in their abilities and felt confident that they would manage to be successful. The participants reflected on the importance of that self-confidence, and they described that believing in your skills can facilitate better performance. Realizing the potential is more likely if they have confidence, which will create more chance of progressing to a better-quality team/environment.

If you believe in yourself and you think you can do everything possible it makes everything so much easier. You can perform better. You definitely need talent but if you believe in yourself it makes your talent show.

Participant 5

Having a positive attitude was another factor that was suggested by the athletes who took part in this study. Good values and generally maintaining a positive attitude towards teammates, coaches, and opponents are vital at elite level sport.

As long as you have the ability and you have the right attitude and character, then you should make it. But it does all come down to the character and your attitude.

Participant 5

Discussion

The purpose of this study was to explore athletes' transitional experiences to elite senior level in sport, specifically identifying the challenges encountered and the factors that facilitated their successful adjustment. The analysis revealed four

overarching themes: a developmental process characterized by early engagement, commitment, and gradual progression; a range of personal and environmental challenges including injury, pressure, and balance between sport and life; the importance of supportive and holistic talent development environments; and individual determinants such as motivation, perseverance, and self-reflection that enabled athletes to thrive. These findings highlight the complex, non-linear, and individualized nature of transitions to elite sport.

The key stages of development that emerged through the analysis correspond to those described previously in the literature (Côté et al. 2007). During their early engagement in sport, athletes were involved in deliberate play activities which have been shown to promote enjoyment and intrinsic motivation both of which facilitate further engagement in sport and future commitment to talent development (Côté & Hancock 2016). More recent evidence has also highlighted that playful and diverse early experiences are a critical foundation for later elite performance (Côté & Erickson 2015, Sieghartsleitner et al. 2018). Additionally, time and space given for the development was identified, which is in line with findings suggesting that some characteristics of talent may need several years to emerge (Andronikos et al. 2019). This highlights the need for long-term development approaches rather than results-driven approaches.

Athletes of the current study reported that they were very committed and had high aspirations to reach elite level in sport. Research has shown that commitment to the pursuit of excellence and motivation are characteristics that successful athletes share (Burns et al. 2022). Those characteristics have been shown to facilitate sport transitions (MacNamara et al. 2010) and the transition to university (MacNamara & Collins 2010). While commitment and motivation were essential, participants also noted that organizational factors such as access to facilities and high-quality coaching can be very influential in the overall quality of athlete development and as a result the outcome of their transitions. This finding could be linked to the concept of the “birthplace effect,” which suggests that availability and quality of resources and opportunities can shape the developmental experiences and pathways of young athletes (Côté et al. 2006). Therefore, our findings suggest that successful progression results from the interaction between athletes’ personal commitment and the quality of opportunities provided by their environment.

Athletes identified that JST occurs around the time of the transition from development to mastery stage, in a period that other transitions are expected to occur in vocational, psychosocial, and psychological level. This finding aligns with holistic models of athlete development (Stambulova et al. 2020), reinforcing that transitions are multidimensional, involving athletic, psychosocial, and vocational domains. Interestingly, participants identified parallel transitions (e.g., from amateur to professional, or pre-elite to elite), underlining the non-linear and individualized nature of development (Thomas 2024). Our understanding is that there is no fixed pattern in which those transitions will occur. Recent research reinforces this dynamic and complex nature, suggesting that the sequence and timing of the transitions may vary depending on the sport and context (Henriksen & Stambulova 2017, Stambulova et al. 2020).

Several challenges, including injuries, pressure, and balancing school and sport were identified in the current study. In line with this, participants described psychological

characteristics such as high self-confidence, work ethic, and perseverance as key resources in coping with challenges, which aligns with previous research (Dohme et al. 2019, Toering & Jordet 2015). Additionally, athletes highlighted the importance of support networks and environments that promote the wellbeing of athletes. Growing evidence supports this finding, noting that high-quality talent development environments create support networks that contribute to better performance and mental health (Ivarsson et al. 2015, Lane 2024). Notably, the present findings suggest that support systems are most effective when they are individualized and embedded across multiple layers of an athlete's environment (e.g., family, coach, peers).

Furthermore, athletes suggested that in certain cases intentional structured challenge implemented by their coaches enabled them to overcome an obstacle, get better or learn how to deal with disappointments. In line with this, Savage et al., (2017) proposed that structured challenges should be incorporated in talent programs (e.g., intentionally promoting athletes to a level or squad that will be difficult for them to handle at a technical and tactical level). Collins and MacNamara (2012) suggested that the deliberate use of structured challenge can facilitate athlete development. The experiences of athletes in this study reinforce this concept, demonstrating that structured challenge can serve as a developmental tool when supported appropriately. Interestingly, recent studies have shown that the learning athletes 'bring into' the challenge is more important rather than the experience itself. Such experiences act as opportunities to prove, test, and refine existing skills (Collins et al. 2016, Savage et al. 2017). It is therefore essential to proactively and intentionally develop supporting mechanisms to prepare youth athletes for inevitable upcoming challenges (Savage et al. 2017). As such, the effectiveness of structured challenges depends on the athletes' pre-existing coping resources, highlighting the importance of 'up-front' skills prior to exposure (Collins et al. 2019). This proactive approach ensures that challenges act as growth catalysts rather than potential stressors.

Conclusions

This study provides valuable insights into mechanisms and processes that support successful transitions to elite senior level, emphasizing how personal qualities and environmental factors interact to facilitate progression and adjustment. In particular, the study highlights the influential role of development experiences, supportive talent development environments, and key psychological characteristics in shaping athletes' responses to challenge. These insights align with previous research on athletic transitions and suggest that effective programs should not only provide resources but also deliberately integrate challenge and psychological skill development to enhance athletes' readiness for transitions. From a practical perspective, such an approach underlines the importance of balancing performance with well-being and personal growth, creating a supportive environment for holistic athlete development.

Although the study involved a relatively small sample of six participants, they were carefully selected to capture the transition experiences of successful athletes across sports and talent development environments. The key determinants that can influence the outcome of the transition appear to be consistent across different

countries and sports. Despite the valuable insights of the current study, it needs to be acknowledged that the focus was solely on male participants. Future research should therefore examine whether similar patterns and mechanisms are evident in female athletes, as gender related differences in developmental pathways and support systems may influence the transition process. Future research should also examine how these factors interact across different contexts and competitive levels as experiences may vary even within the same environment. In addition, further research is required to enable us to understand different types of transitions occurring in sport (e.g., children-to-youth-sport transition). Adopting a longitudinal approach, comparing athletes who successfully cope with a transition with those who do not, could extend our understanding in sport transitions.

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