

An Examination of Talent Identification and Development Systems within Jordanian Football

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Abstract

In recent times, the sports sector across the globe has attracted economic interests both from the public and the private sector. For instance, it was estimated that over \$14 billion was spent in hosting the FIFA 2018 World Cup in Russia. Also, by some estimates, the World Cup 2022 is going to cost Qatar approximately £138 billion (US\$220 billion). In order to remain competitive on the international stage, the processes and support mechanisms within our talent development environments (TDEs) must be effective in order to maintain a consistent stream of talent, capable of success at the highest level. It is possible to take advantage of sports to advance social and economic wellbeing of the people.

Unfortunately, the structure and evidence base for talent development (TD) processes within countries in the Middle East, such as Jordan is weak and lacking in evidence-based guidance for policy and practice. The lack of evidence-based practice in Jordan is unsurprising as there is no research investigating the process of effective talent development systems to date. Jordan is an emerging nation and one of twenty-two countries that speak Arabic. Jordan was selected as the focus of this PhD because it is small, emerging nation with growing number of sport clubs and academies but anecdotally has a lack of effective talent development program. Over recent years, the Government has started to take more interest in developing and resourcing efforts to find international sport success, particularly in football, as such research in to how this may best be done is timely. Since there has been very little work carried out within a Jordanian context, this thesis aims to take a broad examination of the nature of talent identification and development processes within the Jordanian football context and identify how the Jordanian football development system can be improved.

To address these objectives, a mixed methods thesis consisting of four studies were carried out. First, the Talent Development Environment Questionnaire (TDEQ), a tool already used to evaluate strengths and weaknesses of talent development environments across the world was translated and validated in Arabic. Second, the Arabic TDEQ was used to evaluate the strengths and weaknesses of the football in both male and females in

the Jordanian context. These first two studies developed and utilised an evidence-based tool to measure important strengths and weaknesses for *generic* features of effective talent development practice. The confirmatory and exploratory factor analysis from study one showed evidence for psychometrically sound Arabic TDEQ-3, which included 26 items with 3 factors. These factors were included: Individualized Long-term Development Focus (12 items), Goal Settings and Coherent Support (7 Items) and Holistic Quality Preparation (7 Items). The results from study two revealed that Individualised Long Term Development Focus (mean 4.79; SD 0.86) and Goal Setting and Coherent Support (mean 4.75; 0.90) were the strongest features of the environment, with Holistic Quality Preparation the lowest scoring factor (mean 3.72; SD 1.19). Overall females scored lower than males across all three factors, with a relatively larger reduction for Holistic Quality Preparation. While mean scores for Individualised Long Term Development Focus and Goal Setting and Coherent Support were in the region of ‘agree a little bit to agree’ for both males and females, for Holistic Quality Preparation females leaned towards ‘disagree a little bit’ for their experiences of this type of support, highlighting this as a real need for focus.

However, research has identified the need to understand sport specific and context specific features of talent development environments in some depth to ensure that the nuances of effective practice can be gleaned. As such study 3 qualitatively investigated effective talent development practice in Jordanian football from an elite player perspective. Study 4 subsequently qualitatively investigated effective talent development practice in Jordanian football from an elite football coach and administrator perspective. These four studies provided a broad, in depth and triangulated perspective on the specific nature of TID in Jordanian football, utilising the perspectives of hundreds of youth players, six elite players and eight elite coaches and administrators.

The data revealed a number of challenges to effective TID in Jordan including, lack of policy implementation, corruption, poverty, and family resistance, as well as poor infrastructure for sports development. Furthermore, luck played a large role in successful development, especially due to the ad hoc nature of access to coaching and supportive people in the community. Interestingly, the extremely challenging circumstances faced by

players attempting to develop their sporting potentials acted as a mechanism to develop their mental resilience and independence, which facilitated success. Furthermore, findings suggest that widespread cultural practice through early years (e.g. Talent Development for Young Players) developed a general physicality among Jordanian children, which could serve as bedrock of TID, if the other talent development environments were put right.

Author's Declaration

Edinburgh Napier University, July 2022

I hereby declare that:

- a) I have composed this thesis
- b) This thesis is my own work and,
- c) This work has not been submitted for any other degree or professional qualification except as specified

Sadam Saleh Altwassi

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List of Abbreviations

| | |
|--------|---|
| TID | Talent Identification and Development |
| TI | Talent Identification |
| TDE | Talent Development Environment |
| TD | Talent Development |
| RAE | Relative age effect |
| TDEQ | Talent Development Environment Questionnaire |
| TDEQ-6 | Talent Development Environment Questionnaire with 6 factors |
| TDEQ-5 | Talent Development Environment Questionnaire with 5 factors |
| TDEQ-3 | Talent Development Environment Questionnaire with 3 factors |
| LTF | Long-Term Development Focus |
| AOE | Alignment of Expectations |
| COM | Communication |
| HQP | Holistic Quality Preparation |
| SN | Support Network |
| ILTDF | Individualized long term development focus |
| GSCS | Goal settings and coherent support |
| EFA | Exploratory Factor Analysis |
| CFA | Chartered Financial Analyst |
| FIFA | Federation of International Football Associations |
| AFC | Asian Football Confederation |

| | |
|-------|--------------------------------|
| JFC | Jordanian football Association |
| ANOVA | Analysis of Variance |
| CFA | Confirmatory Factor Analysis |
| DFA | Discriminant Function Analysis |
| DOTS | Development of Talent Study |
| EFA | Exploratory Factor Analysis |
| LTAD | Long Term Athlete Development |

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Chapter 1- Introduction

1.1 Overview of Jordan and its Relationship to Sport

Jordan is 89,341 km² in size, with roughly 10 million population reported in 2017. In 1946, Jordan gained its independence with the name 'Transjordan,' and two years later (1948), the name was changed to Jordan. Jordan is ruled by a constitutional monarch, whereby the state is ruled by the king, who is also the commander-in-chief of the army. Jordan has enjoyed peace and stability, as opposed to some of its neighbouring countries, because of two major factors namely a peace treaty with the neighbouring countries, and collaboration with the United States on strategic projects in the area. The peace and stability have allowed Jordan to concentrate on its economic developments. Not only that, Jordan has been able to unite its various tribal, religious, ethnic and cultural elements (Fleming, 2015). Among the 15 Arab countries, Jordan ranked first in the state of democratic reforms (The Arab Democracy Index, 2010), and in the Human Freedom Index (2015), Jordan ranked first among the Arab states, and 78th globally.

King Abdullah II was particularly interested in youth issues, with a specific focus on physical education and sports (Makhadmeh, 2015). Hence, with the King's support, Jordanian sports organizations have established long term goals and strategies to increase performance. Additionally, the King introduced the Award for Physical Fitness in 2005, for the purpose of motivating the performance of pupils in sports. Following the introduction of the award, daily physical activity became a school curriculum requirement in Jordan. Somehow, the Syrian refugee crisis, the Arab Spring, and the rise of ISIS, have interrupted the social-cultural fabric of Jordan because the government had

to redirect its resources and focus on more pressing matters like national security, and so, other matters with less urgency like sports were deserted (Makhadmeh, 2015).

Still, Jordanians continue to enjoy sports because it has become part of the culture of the country. Among the sports played include equestrian sports, football, basketball, rugby, skateboarding, cycling, tennis, and others. In fact, since 1980, Jordan has been a participant of summer Olympic Games. For the winter Olympic Games, Jordan has yet to take part. In terms of sports in Jordan, football has been the most popular, among younger generations especially. The Jordanian national football team was in fact ranked 37th in the FIFA Rankings in September 2004. Accordingly, the Jordan Football Association is the body that governs, runs and oversees little leagues and youth clubs of football in the country, and in 2013, this body was recognized as the best association of the AFC (Asian Champions League). Football has been one of the leisure sport activities for people in Jordan. In 1944, the Jordan League was established, following the principles comparable to those of the English Premier League. As reported by Makhadmeh (2015), the league has been showing consistent progressions as evidenced by its new teams, superior players, handsomely paid managers, and new stadiums.

Rugby is also a popular sport in Jordan, and its popularity is on the rise. There are currently four rugby clubs in Jordan, from four major cities that are leaders in the national sports arena. Another increasingly popular sport in Jordan is basketball, and Jordanian basketball teams have been participating in many international events within the region.

In Jordan, the curriculum of physical education is determined by the Jordanian Ministry of Education (Altwassi, 2015). In addition, the Ministry of Education of Jordan is in close

collaboration with sports organizations like the Jordanian Football Association. In particular, the collaboration with the Jordanian Football Association since 2005 has resulted in the inclusion of football in the school curriculum since 2005, the provision of trained physical education instructors in schools, and the organization of football tournaments amongst school clubs. The ministry is also in collaboration with the Jordanian School Sports Federation. This independent body which was established in 1992 is responsible in organizing and monitoring the school sport competitions during the school year.

Recently a women's football tournament was held in the Middle East. Prior to that, women were nearly non-existent in the arena of football, even as spectators. The first match in the FIFA Women's Championship was between Jordan and Spain and was a historic event. This was three years after FIFA gave Jordan the honour to host the FIFA U-17 World Cup, and two years after headscarves (Hijab) were allowed among women footballers. This memorable tournament has resulted in the intensification of football development efforts, particularly among women.

Jordanians are clearly very passionate about sports as evidenced by the existence of various clubs and sports associations. Somehow, Jordan still lacks the structure for talent identification and development, despite the acknowledged direct linkage between identification and development, and sustainable and world-class performance (Martindale et al., 2007; Wang et al., 2011).

1.2 Context and Background of Football

Across the globe, sports especially football, has currently captured the economic interests of both private and public sectors. As evidence, the FIFA World Cup 2018 hosted by Russia had cost roughly \$14 billion. For the World Cup 2022 hosted by Qatar, the cost was estimated at £138 billion (US\$220 billion). Clearly, as among the most eminent competitions in history, the World Cup preparation would involve massive amount of investment that may include the construction and renovation of old stadia as part of the preparations. Apart from the World Cup, the Champions League has been bringing to the table roughly €3 billion every year, and it is the most noteworthy pool for a club-based sports tournament. Additionally, approximately €500 million would be allocated by UEFA to pay for administration and other expenses.

As the most popular sport in the world, FIFA reported that football is played by roughly 265 million people all over the world, while 3.5 billion individuals called themselves fans of football. It was expected that the numbers would continuously expand as football becomes more popular each year, gaining new stronghold in new regions each year. The ability of football in dynamically reaching new fan bases and regions makes it an ideal and truly global sport.

The interest and investment in football has been on the rise, and as mentioned in studies including Martindale et al. (2005), Johnston et al. (2017), Bennett et al. (2018) and Sarmiento et al. (2018), the situation has led to the recent increase in training and performance standards, and the search for the most effective talent development processes. Concerns over less than optimal development process and poor awareness of what these entail, is important because the development of young talent has the potential

for significant financial gain, and maximising the best utilization of the talent pool quality. As indicated by Martindale et al. (2010), the process needs long-term vision and resource. Because effective talent development may be time consuming and require significant amounts of perseverance, this can be a barrier, particularly in environments where a lack of awareness or delayed gratification exists.

Irrespective of their demographic background, all motivated and talented footballers of both genders deserve an opportunity in being scouted, identified and developed. FIFA accordingly has reported that only about half of the leading 100 football related associations have a talent identification and development (TID) system for boys and girls. Meanwhile, 85% of the top 20 MAs (Member Association) have trained scouts and talent ID staff. However, many MAs in the top 100 have no fitting strategy to spot talented players. Notably, it is more common for men's football, as opposed to women's football, to consider the relative age effect. Still, the percentages are still rather low across the top 100 MAs. In fact, only about 51% of the MAs ranked from 51 to 100 were reported to have such programmes in place. For women's football, most of the top 20 MAs were implementing specific strategy for the TID of players. Meanwhile, lower-ranked countries were less likely to implement such system or have such criteria. As such, Jordan is highly likely to be in need of clear evidence based from which to understand and implement effective TID processes, in order to move forward successfully.

1.3 Context and Background of Jordanian Football Success

The Jordan national team's ranking did not begin until 1992, while the women's team was already being ranked since 2006 following its formation. Notably, the FIFA rankings as shown in Figures 1 and 2 were demonstrating the fluctuations in the world rankings of

the Jordanian national teams. However, the last decade has seen a significant improvement of performance of Jordanian teams, but so far, the Jordanian national team is not yet qualified to play in the World Cup. In fact, in 2013, losing to Uruguay during inter-confederation play-offs had shattered Jordan's qualification to play in the 2014 World.

Figure 1.1 FIFA World Ranking- Jordanian Women's Team

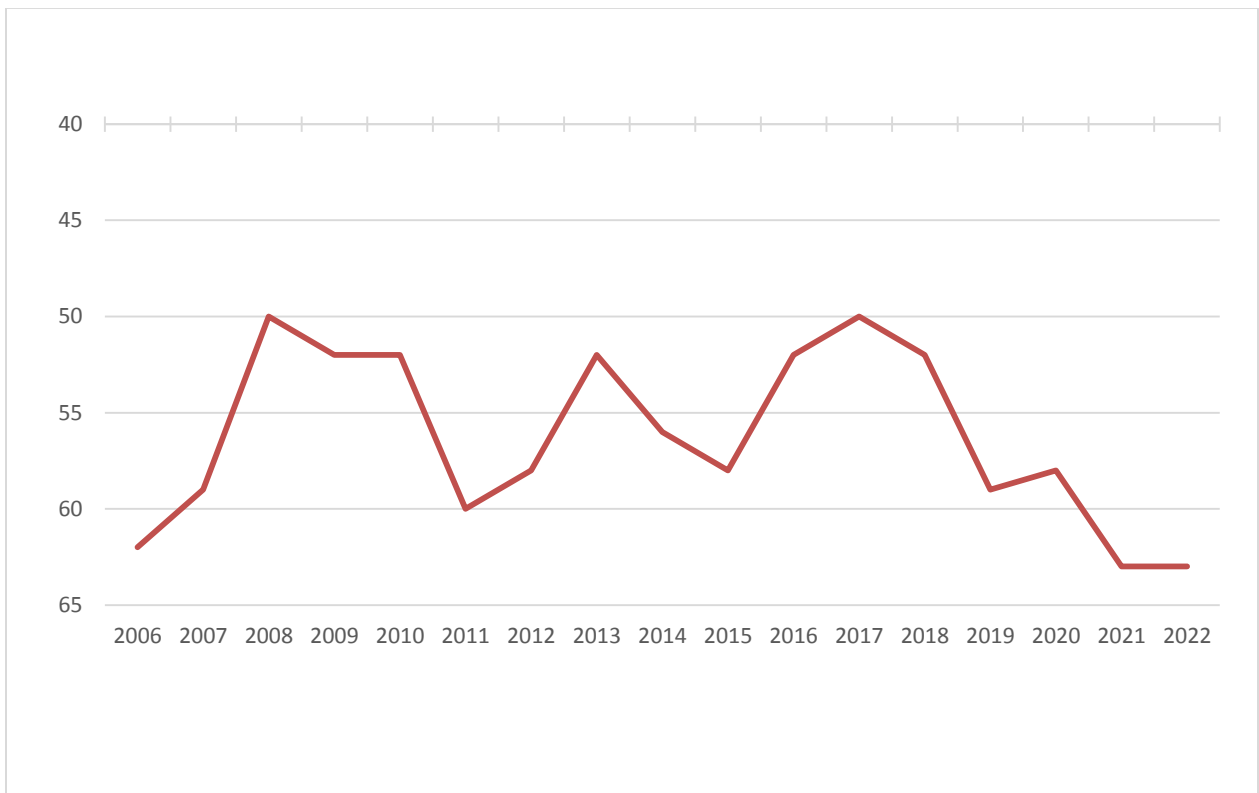
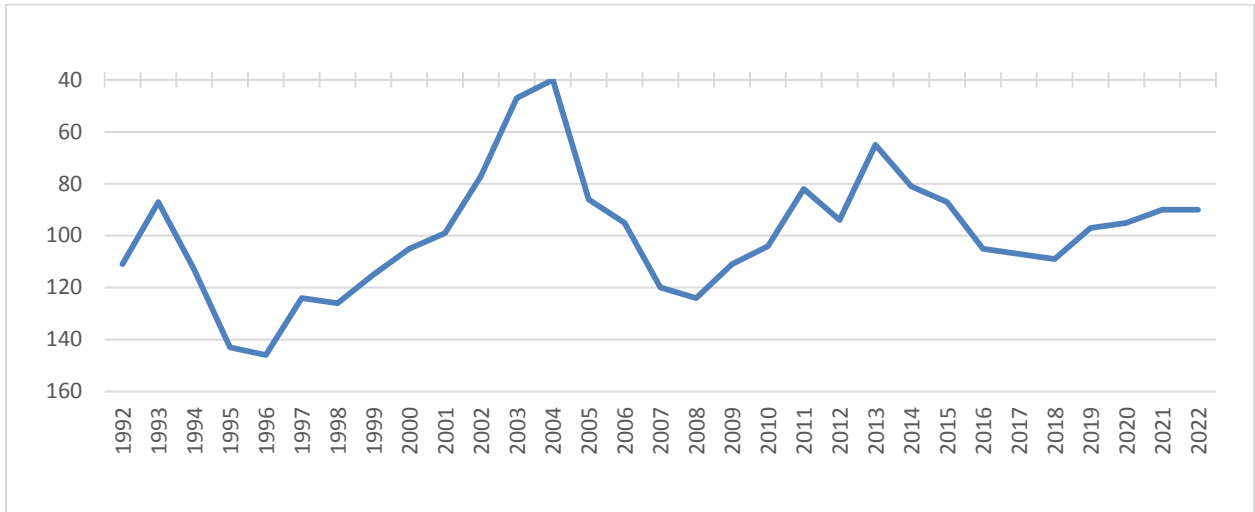


Figure 1. 2 FIFA World Ranking- Jordanian Men’s Team



Remarkably, women's football team in Jordan is increasingly demonstrating their prowess. In March 2016, the women's team attained the 58th place globally. Over the years, the performances of both teams (men and women's) in Jordan were fluctuating at 93th and 63th place respectively by the last updated for FIFA World ranking (March /2022). Clearly, the ranks had dropped for both teams, which signifies the need to systematically evaluate the talent development environment (TDE) for football in Jordan.

For Jordan, the country's national football teams have yet to reach an international achievement, and for Jordanian football, there is indeed a need to evaluate its talent development environment (TDE). Pertinently, researchers (e.g., Martindale et al., 2007; 2010) have for some time indicated the need to carry out more international investigations on talent development environments. This thesis therefore attempted to evaluate the strengths and weaknesses of the Jordanian football environment, for both male and female football, at development levels.

For Jordanian football, TDE needs to be systematically evaluated because as an emerging nation, Jordan could considerably reap benefit from the prospective understandings, not only in the context of football but also in the more general and reasonable application of practices by coaches and their administrators in other sports as well. Indeed, because of the lack of this type of research within the Arabic setting and Muslim society, the findings of this study could increase the knowledge in the domain. The results may also be of value to other countries, especially those comparable to Jordan, for example countries in the Middle East that share several similarities with Jordan such as culture, language, religion, regulatory and sport environments.

In line with this desire to improve success, the past years have witnessed a widespread rise of football academies. The Jordanian Football Association indicate that the number of academies exceeds 500 in the Kingdom. However, only 4 of which are licensed, pointing to the weak performance of some with the absence of legal status in terms of registration in the Ministry of Industry, Trade, and organisation of training courses for the academy owners and trainers by the federation. In addition to facilitating the securing of visas in case the academy participates in friendly meetings outside the Kingdom. The Football Federation also announced, earlier, special instructions and foundations related to licensing academies after the approval of the Olympic Committee and registration in the Ministry of Industry and Trade under the umbrella of the Federation.

The Jordanian Football Association also classified the private academies according to the services they provide and the facilities they provide into three levels: A, B, and C. Each category is concerned with providing services commensurate with the category of registration at the union. The Federation also direct supervision and control of the

training activities practiced by the training academies, and follow-up of the implementation of the general policy related to training in terms of its objectives, quantity and type, in order to ensure that the pedagogical and educational practices are applied. However, in practice there is an absence of qualified coaches to supervise the players. Which drives towards the importance of starting the implementation of the regulatory procedures for the foundations of the Academies announcements, objectives, and the conditions for licensing. Furthermore, many Jordanian coaches work under pressure or in difficult conditions, with low wages, while in contrast the clubs often pay foreign coaches well, which is a challenge for morale.

Sports coaching in Jordan is a profession and not a job, in which the coach develops by going through advanced courses and gaining experience on the fields while leading the teams. This task is tackled by the Jordanian football Association, which is supposed to have a policy to prepare coaches who can benefit from them by supervising the national teams of different age groups, supported by clubs wishing to develop their coaches because the situation between the Association and the clubs is a complementary one. Also, the responsibility lies with the coaches themselves to develop their capabilities. Indeed, the right certification qualifies coaches to lead any professional team, age group or club team. However, the coach education system does not cater for large numbers of coaches at different levels.

Furthermore, clubs are influenced by how much they can afford to pay coaches, what coaches are able to dedicate to their role, rather than qualifications per se. As outlined there needs to be more opportunity for qualification and re-qualification for those who need coaches, and of the coaches who need to gain experience, and because if

professionalism is to become successful in Jordan, the union and the club will need to work together. There is also a need for the federation to have an organizational structure for trainers. While Jordan does have qualified people in the training and academic fields, they need experience, and an association of trainers to underpin this structure and process. It is clear that there are many challenges to the structure of football development and in particular the education and support of coaches.

1.4 Research Objectives

Clearly, talent identification and development (TID) in Jordanian context is worthy of scrutiny. In fact, in their studies, Altwassi (2015) and Makhadmeh (2015) had discovered a lack of clear directions for talent development in this country. The problem has been further intensified by the weak execution of developmental plans, unstable policies and procedures, excessive politicization of sporting appointments, and inadequate research-based practice within the sport sector (Makhadmeh, 2015) which have led to the deterioration of sports management in this country. Hence, Jordan has become an unenviable country among the sporting nations, and so, Jordan would benefit from the application of evidence based approaches to sport development.

In Jordanian football association, there has been a dire need to develop talented football players, coaches and administrators. Notably, talent identification and development (TID) environment of sports in the Arab nations like Jordan, has neither been properly addressed nor scrutinized. The main focus of this study was hence to comprehend talent identification and development theories, proof and models, in the setting of Jordan, for the purpose of finding out what is effective practice within talent development

environments and its potential applicability within the context of Jordan. As such, this study attempted to accomplish the following key objectives:

- To translate and validate the Talent Development Environment Questionnaire (TDEQ-5) into Arabic.
- To investigate the perceptions of Jordanian football players on the nature of talent development in Jordan.
- To investigate the perceptions of Jordanian coaches on the nature of talent development in Jordan
- To investigate the perceptions of Jordanian administrators on the nature of talent development in Jordan

1.5 Thesis Outline

Altogether, this thesis comprises of seven chapters. First, an introductory chapter, then Chapter Two, which comprises of a literature review detailing evidence and concepts related to talent identification and development from various perspectives. This includes the review of past relevant studies, focusing on the general topics of talent identification and development, and on talent development in football arena in more detail. The general research findings are highlighted, and gaps in the literature are identified, particularly those needing more in-depth scrutiny.

Chapter Three aims to translate the instrument called the Talent Development Environment Questionnaire (TDEQ-5) into Arabic. The TDEQ has been translated into many languages over the past 10 years and an Arabic version greatly improves the possibility of research interest and development on talent development in Jordan, and

other Arab speaking countries. The translation of TDEQ-5 into Arabic is detailed and validated.

Chapter Four presents the assessment of talent development environments across Jordanian football, with the application of Arabic TDEQ (developed in study 1). In Chapter Five, the first qualitative study is detailed, focusing on the perceptions of Jordanian elite footballers concerning the nature of athlete and sport development within Jordanian context. The experiences of Jordanian elite football players were explored using retrospective interviews. The inductive analysis carried out reveals the general information on the challenges facing the development of football in this country. The role played by family, coach, government, and athlete's own commitment as a critical factor in talent development is scrutinized.

Chapter Six presents the second qualitative study, and it discusses the perception of TID in Jordan by elite coaches and by the administration. The two qualitative studies (the first one discussed in Chapter Five) presents triangulated evidence concerning the nature and context of talent identification and development in the setting of Jordan. The studies also present information relating to the challenges faced by players, coaches and administration in developing successful talent identification and development among men and women footballers in Jordan. The third and fourth objectives are addressed in this chapter.

Chapter Seven as the last chapter, completes the thesis. The foci of discussion in this chapter include the key findings, implications, research limitations and the areas appropriate for additional examinations.

1.6 Methodology

1.6.1 Quantitative and Qualitative Research Paradigms and Approaches

The quantitative paradigm is based on objectivism and positivism, therefore, it is called "the scientific research" (Creswell, 2014; Ma, 2012; Jonker & Pennink, 2010). According to the quantitative paradigm, there is only one objective reality that is separated from the researcher's perceptions. The researcher is independent of the phenomenon under investigation, he does not affect nor affected by the phenomenon. The main goal of quantitative research is to measure causal relationships using a value-free framework (Johnson & Onwuegbuzie, 2004; Sale et al., 2002). From the other hand, the qualitative paradigm is based on subjectivism and interpretivism. Qualitative researchers believe in the existence of multiple realities based on researcher's construction of reality. The investigator and the phenomena cannot be separated and findings are mutually created within the context through value-bound research, which suggests that reality does not exist before the investigation process and ceases to exist when we no longer focus on it (Johnson & Onwuegbuzie, 2004; Sale et al., 2002). The quantitative approach follows the quantitative research paradigm and depends on the collection and analysis of quantitative data (Bryman & Bell, 2007; Johnson & Christensen, 2012). It is a "confirmatory" or a "deductive" approach as its main goal is to test theories and hypothesis by examining the relationships among variables (Antwi & Hamza, 2015; Bryman & Bell, 2007; Johnson & Christensen, 2012; Creswell, 2014). On the other hand, the qualitative approach follows the qualitative research paradigm and depends on the collection and analysis of qualitative data (Bryman & Bell, 2007; Johnson & Christensen, 2012). It is an

"exploratory" or an "inductive" approach that aims to explore and understand the meanings that individuals or groups attach to the social phenomena (Bryman & Bell, 2007; Johnson & Christensen, 2012; Creswell, 2014). However, many researchers believe that both approaches can be integrated to serve the process of social inquiry for two reasons. First, the choice between the quantitative and qualitative research approaches is mainly based on the position of the conducted research to the theory. The quantitative deductive approach is testing a theory, while the qualitative inductive approach is developing one (Glogowska, 2011; Saunders, Lewis, & Thornhill, 2009). Second, besides the role of each approach in developing knowledge, the two approaches have contradicting advantages and disadvantages. The quantitative approach has the advantages of providing quantitative precise results and being relatively quicker in data collection and analysis. However, theory and hypotheses tested in the quantitative research may disregard some important variables and do not reflect the local social understanding. From the other side, qualitative research is useful in examining a limited number of cases in depth. It is also very helpful in addressing complex phenomena as it can provide rich details. However, then knowledge produced by qualitative research cannot be generalized in other contexts. Besides, it is very time-consuming in data collection and analysis (Johnson & Onwuegbuzie, 2004). From this integrated view of the quantitative and qualitative research, the mixed research approach has emerged

1.6.2 The Mixed Research Approach

1.6.2.1 Defining the Mixed Research Approach

Over the past two decades, the mixed research approach has been increasingly acknowledged as the third methodological movement (Biddle & Schafft, 2015; Cameron, 2011; Hall, 2013; Ma, 2012; Molina-Azorin, 2016). Quantitative and qualitative approaches are no longer seen as two discreet opposite approaches. Instead, they represent two ends of a continuum as a study can be seen as more quantitative than qualitative or vice versa. The mixed research approach is in the middle of this continuum (Creswell, 2014; Johnson & Onwuegbuzie, 2004).

In the mixed research, a researcher uses a mix of quantitative and qualitative approaches (designs and methods) in one study or a set of related studies. This can be done either concurrently when conducting both parts at the same time or sequentially when conducting one part first and the other second (Antwi & Hamza, 2015; Johnson & Christensen, 2012; Ma, 2012; Molina-Azorin, 2016). The reason for choosing the methods will determine its order in the research design (Glogowska, 2011; Molina-Azorin, 2016). The core assumption of the mixed research approach is that mixing quantitative and qualitative methods provides a complete understanding of the research problem than using only one type of methods (Creswell, 2014; Molina-Azorin, 2016). For example, Mitchell (2018) have explained two case studies where mixed research methods were used, he found out that using mixed research have provided both quantitative and qualitative reasoning that lead to best data explanation and best understanding for the studied research phenomena.

The mixed research approach is usually referred to as the "mixed methods research". However, researchers are arguing about which term is more appropriate. For example, Johnson & Christensen (2012) believe that using the term "mixed research" without

including the word "methods" is not only simpler but also more accurate as the quantitative-qualitative debate is not only about methods but mainly about philosophy. However, Fetters and Molina-Azorin, (2017b) disagree arguing that when the term "mixed methods research" was initiated there was no intention to exclude the philosophical aspects of the concept, and meanwhile, the term is seen to be inclusive of all philosophical and methodological sides. Although the term "mixed methods research" is the most commonly used at the present time (Johnson, Onwuegbuzie, & Turner, 2007), the researcher agrees with Johnson and Christensen and believes that the term "mixed research" is what actually reflects the true essence of this approach.

In addition, the mixed research approach is different than what is called the "multi-methods approach" or "multiple methods approach". However, the relationship between the two terms is not clear. For example, Greener (2008) and Hall (2013) believe that in the multiple methods approach a researcher adopts different methods of data collection that all belong to the same type either quantitative or qualitative, subsequently; it does not face the same philosophical debate the mixed research approach does. On the contrary, Fetters and Molina-Azorin, (2017a) believe that the multiple methods approach includes using more than one method of data collection that can be all quantitative, all qualitative or a mix of quantitative and qualitative methods; in consequence, they classify the mixed research approach as one form of the multiple methods approach.

Finally, it worth mentioning that some researchers refer to the mixed research as a third paradigm or a combination of paradigms, not as a third approach (e.g., Baškarada and Koronios, 2019; Ghiara, 2019; Ma, 2012). Researchers who adopt this point of view explain their perspective by the various meaning of the term paradigm itself. In the

researcher's opinion, this is an additional source of confusion that we do not need. It is necessary to differentiate between mixing quantitative and qualitative methods as a research approach and the underlying philosophical assumptions that support this methodological choice.

1.6.2.2 Advantages and Challenges of the Mixed Research Approach

There are two main advantages of using the mixed research approach (Sale et al., 2002). The first advantage is the "complementary strengths" which means using the strengths of one research method to enhance or support another one. Mixed researchers believe that using only quantitative or qualitative research is limited and incomplete for many research problems. As every approach has its strengths and weaknesses; they should be combined in a way that improves research quality by gaining integral strengths and avoiding overlapping weaknesses (Johnson & Christensen, 2012; Sale et al., 2002). The second advantage is "Triangulation". The purpose of triangulation is to enrich and strength research results by using different methods of data collection and analysis to study the same phenomenon in order to gain a complete understanding of this phenomenon. Triangulation is also used to check on findings from a particular method with finding reached by another one (Glogowska, 2011; Greener, 2008; Molina-Azorin, 2016; Sale et al., 2002). From the other side, implementing the mixed research approach is faced by two main challenges. First, the mixed research approach needs more time, effort, and money as it includes two phases of research at least (Molina-Azorin, 2016). Second, it requires the researcher to expand his research skills, talents and experiences by learning about new research methods and techniques in order to be qualified to conduct both the quantitative and qualitative parts of research (Fetters and Molina-Azorin, 2017b;

Molina-Azorin, 2016). This last challenge, in particular, should be seen as an opportunity, as many researchers tend to keep using the same research methods and avoid learning about new ways of doing research which limits their chances of adopting a wide range of research problems (Molina-Azorin, 2016).

1.6.2.3 Research Designs for the Mixed Research Approach

There are three research designs for the mixed research approach. First, the "convergent parallel mixed method" is a research design where a researcher collects both quantitative and qualitative data at the same time and then integrates the overall results to get comprehensive analysis for the research problem (Barnes, 2019; Creswell, 2014). This research design can take two forms, "the concurrent triangulation design" which uses two research methods one of them is basically used to confirm or check on the findings of the other, and the "concurrent nested design" where there is one main research method and the other one is used for different purpose such as answering a different research question or focusing more on a minor group of a major group (Barnes, 2019) Second, the "explanatory sequential mixed method" is a research design where a researcher conducts quantitative research first then qualitative research. The researcher conducts the qualitative research to provide further explanation for the quantitative research results. Finally, there is the "exploratory sequential mixed method" where a researcher starts with qualitative research then conducts quantitative research. Data from the qualitative phase could be used to build a new instrument, choose an appropriate one, or to choose variables that are going to enter the following quantitative research phase (Barnes, 2019; Creswell, 2014)

1.6.3 Pragmatism as a Philosophical Justification for the Mixed Research Approach

Many researchers have stressed that pragmatism can provide a philosophical justification for the mixed research approach. For example, Denscombe (2008) and Mitchell (2018) have mentioned that pragmatism is considered to be "the philosophical partner" of the mixed research approach as its underlying assumptions provide the essence for mixing research methods. Also, Johnson et al. (2007) agree that pragmatism is an advanced philosophy that provides the epistemology and the logic for combining the quantitative and qualitative approaches and methods. Moreover, Creswell (2014) has mentioned that pragmatism is the philosophy that permits mixing paradigms, assumptions, approaches and methods of data collection and analysis.

Pragmatism is all about the notion "what works". This is mainly referring to the pragmatic theory of truth. Pragmatism is simply oriented toward solving practical problems in the real world rather than being built on assumptions about the nature of knowledge (Creswell, 2014; Hall, 2013; Shannon-Baker, 2016). This means that pragmatism leads "action-oriented" research procedures (Cameron, 2011).

In order to explain the relationship between knowledge and action from the pragmatic point of view, Goldkuhl (2008) and (2012) has defined three forms of pragmatism. First, the "functional pragmatism" or "knowledge for action" which means that the purpose of scientific knowledge is to improve action and make a practical difference. Second, the "referential pragmatism" or "knowledge about action" which implies that pragmatism describes the world in an action-oriented way. Third, the "methodological pragmatism"

or "knowledge through action" which asserts that knowledge is created through action, or action is our source to know about the world.

In addition, the notion "what works" is also related to the use of research methods (Creswell, 2014; Hall, 2013). Every research starts with an interesting thought or a research question and a final goal to answer this question in order to add valuable knowledge to the concerned area of research (Greener, 2008). According to pragmatism, research should be designed and conducted in the best way that serves to answer the research questions regardless of its underlying philosophy (Biddle & Schafft, 2015; Creswell, 2014; Glogowska, 2011; Johnson & Christensen, 2012; Saunders et al., 2009).

As it supports using whatever research method "works" to answer the research questions, pragmatism does not only justify the mixed research approach but also opens all methodological choices in front of a researcher where the mixed research approach becomes one way of applying the pragmatic philosophy. Biddle & Schafft (2015) have mentioned that a pragmatic researcher has the option to conduct quantitative, qualitative or mixed research based on what serves his research purposes.

Many researchers criticize pragmatism as a philosophy in general and also as a philosophical justification for the mixed research approach. In the researcher's opinion, some of these arguments are not strong enough while others cannot be ignored. For example, Hall (2013) has criticized pragmatism from a methodological point of view for not defining "what works" when it comes to research methods. He has argued that the value of research methods cannot be assessed before the research is completed. However, the researcher believes this argument is not convincing. The purpose, advantages, and

disadvantages of every research method are clear and have been examined by thousands of researchers. The talent of a pragmatic researcher relies on his ability to determine which research method serves which research purpose and in case of mixing methods he should be able to design his research in a way that gains the advantages of both quantitative and qualitative methods while avoiding their weaknesses. Another example, Biddle & Schafft (2015) have criticized pragmatism from an axiological point of view. They have argued that pragmatic researchers ignore the role of values in research. They suggest that defining pragmatism as "what works" raises the question of "what works for whom and to what extent?". The researcher believes this is a weak argument too. One possible simple answer for the question "what works for whom?" it could be anyone the pragmatic researcher is interested to serve by his research based on whatever research purposes he decides.

However, pragmatism also faces strong criticism for its basic underlying assumptions. For example, Biddle and Schafft (2015) have criticized pragmatic researchers for using any research method believing that the philosophy which a research method is based on is not related to the practical benefits of this method. In addition, Sale et al. (2002) argue that pragmatism does not address the issue of the differing assumptions of the quantitative and qualitative paradigms. They believe these assumptions suggest that quantitative and qualitative methods are not studying the same phenomenon, which makes mixing methods for cross-validation or triangulation is not logical. In the researcher's opinion, this is the strongest criticism for pragmatism as a philosophy in general and a justification for the mixed research approach. The researcher believes that the philosophy which any research method is based on and the practical benefits of this

method are totally related, however, pragmatic researchers did not give much attention to the paradigmatic philosophical debate depending heavily on the notion "what works". Without a clear philosophical justification for the pragmatic methodological choices, pragmatism will always be underestimated as an integrated paradigm and will be equal to "the paradigmatic stance" or "the multiple paradigm approach". Therefore, the researcher is presenting pragmatism as a coherent paradigm by conceptualizing its ontological, epistemological, and axiological stances from his point of view.

Chapter 2-Talent Identification and Development Systems within Jordanian Football: An Overview of the Current Literature

2.1 Introduction

Talent development (TD) systems have been an important topic in sport psychology and consistently promoted investigation for over three decades now. Interest, and resource aimed at developing high-class athletes has also increased significantly in recent years. National sporting bodies have given increased attention to the effective development of successful elite athletes due to the increased professionalization and standards of sport, and also the potential for financial gain. While on an international level successful world class national teams can result in significant kudos and economic compensation favourable for both the athletes and their countries.

Resource and interest in talent identification and development systems varies greatly from country to country and is influenced heavily by specific factors ranging from wealth, to population size to coaching quality. This creates an immense discrepancy between talent identification and development in well-established football nations and emerging ones (Bennett et al., 2018). In fact, socio-cultural influences on talent and development in football have been hardly addressed by research (Sarmiento et al., 2018), and there is a dearth of research on the experiences within emerging nations. Interestingly, many emerging nations are starting to improve their status on a world level. For example, Jordan is a small emerging country with relatively poor-quality sport development infrastructure, and traditionally has had little success on the world stage in male and female football contexts (e.g., Asian Cup, Age group World Cups). However,

over the past 15 years interest has increased and there is evidence that things have started to change.

Since the Jordanian football association was established in 1992 and 2006 (for male and female teams respectively), the FIFA rankings have improved from 110th to 95th for men and 62nd to 58th for women. However, the men's team have ranked as high as 37th in 2004 after reaching the quarter final in the Asian cup for the first time. Furthermore, in 2007, the Jordanian U20 team qualified for the U20 World cup and became the first Jordanian team to participate in a world cup tournament.

While Jordan have reached the semifinals of the 2002 Arab Nations Cup, came fourth place in the 2000 West Asian Football Federation Championship, then in both 2002 and 2008 came second place in the same Championship, they have yet to qualify for a World Cup. The national team gained good results in the first round of the 2002 World Cup qualifiers (winning two games, losing two, and drawing a further two), but failed to qualify for the next round in the same tournament. They also failed to qualify for subsequent World Cups, however when they won second place in the 2011 Pan Arab Games in Qatar, the team ended up being in third place in the final round of the Asian group qualifying for the 2014 World Cup. With two teams still evenly matched at full-time in the second leg, Jordan eventually progressed to the intercontinental playoff after winning 9–8 on penalties. Unfortunately, the Jordanians missed their very first FIFA World Cup debut after losing 5–0 against the Uruguayan team, after the goalless draw in the second leg.

On 3 September 2014, Ray Wilkins was appointed as the new coach of Jordan. He then led the Jordanian team to the 2015 Asian Cup. Unfortunately, they were eliminated in group-stages for the first time after two losses against the Iraqi and Japanese and only one win over Palestine. In the last two years the performance has remained poor and the Jordanian team could not make it to the final round of the 2018 FIFA World Cup qualification by losing in two matches: 0–1 to Kyrgyzstan and 1–5 to Australia respectively.

While there has been an overall improvement for football in Jordan, there has recently been a noticeable fluctuation in the ranking and performance of the men's team, despite the success of the U21 team in 2007. With regards to the women's national team, despite successes in 2014 and 2019 in the WAFF Women's Championship, the women's national team has not yielded much success in terms of performance at the AFC Women's Asian Cup or the Asian Games. This highlights that it might be the right time to examine and evaluate the TID process in the Jordanian football context, helping to understand which areas need improvements, and what barriers that may exist. That may help people in charge in the Jordanian football association to formulate more sustainable sport environment for football players, for the men's and women's teams alike.

Another reason to focus on improving the talent development environments within Jordanian football is to retain talent within the system. Many talented football players move to different countries as clubs seek to maximize their chances of success; this creates an imperative for talented athletes to be identified as early as possible and developed as

highly skilled as possible (Sarmiento et al., 2018)¹. This practice is most clearly evidenced by the Jordanian men's national team and their players. After the 2007 Asian Cup (when the team failed to qualify), players from the Jordanian national team began to leave their clubs for others in the region—though these others are lower ranked nations. By doing this, players are attempting to optimise their earnings and footballing environments, but simultaneously, these practices start decreasing the level of performance by the Jordanian teams. Opportunities abroad lead to a decrease in talent for the Jordanian teams, yet the practice is explained by motivations for talent development and income, and can be one reason for the fluctuation in performance and ranking of the Jordanian men's team in particular.

Given the thesis aim of examining the talent identification and development (TID) environment within Jordanian football, this chapter aims to provide an overview of the current talent development research to date, to enable reflection on what may be relevant and useful for the Jordanian context, as well as to provide a backdrop to the empirical context specific research through chapters 3, 4, 5, and 6. By doing so, the thesis will give insights into the weaknesses and strengths of the Jordanian TD environment from both a current knowledge and up-to-date context specific empirical perspective. Moreover, this chapter will identify research gaps and areas that need specific investigation to understand TID within the Jordanian context.

Due to the lack of research within the Middle East in this research area, it is hoped that in some way this work can help pave the way for future research to be conducted within the

¹ The same case applies in Jordan where players leave their local teams and move to other low ranked clubs in the gulf region. By doing that, they aim to sign better contracts before getting better marketing opportunities. Most of that happened mainly after the 2007 Asian cup. Most of the players in the team did a great job against Japan in the quarter final.

Middle East context. That is, researchers from Arab countries may be able to benefit from the cultural similarities between their countries and Jordan. It is hoped that the implications of this research will hold ‘user generalisability’ and help for form a platform for the future research. Furthermore, some sections such as bio-banding are not mentioned in the results of this thesis but since no research was conducted on TID and TDE in Jordan, it is very important to mention them in this chapter as this study may become a background and basis for future research.

2.2 Related literature on talent identification and development

TID has received considerable attention by sport stakeholders in some countries that aim at improving their competitiveness either locally or globally (Vaeyens et al., 2008; Baker & Schorer, 2010; Li et al., 2015). Specifically, TD concerns research providing the appropriate environment for athletes before being able to realise their potential (Williams & Reilly, 2000). In other words, TID is of high relevance for long term success because without talent enhancement, it might be very difficult, if not impossible for players to reach the peak of their sporting careers (Moesch, 2011; Ifeoma, 2015). The aim of TID is not then just to identify the best players immediately, but to understand the development process which enables performers to maximise their potential and hopefully reach a world-class stage (Vaeyens et al., 2008). Early research in TID focused on understanding the development journey from novice to elite status. Several models have been developed, which are examined in the next section.

2.2.1 Staged Models for TID

The original work investigating the TD journey was carried out by Bloom (1985) who interviewed 120 experts in the USA, dedicated to different disciplines (e.g., sport, art,

science). During the first stage, which is known as ‘Initiation’, the priority of the coach is to generate pleasing experiences for the children. This will later create a stronger commitment in the child, because when they start to commit more to sport activities, this will be done mainly for fun and entertainment, which in turn will create a positive impact on the child. Together with the parents’ support this will invigorate the child’s interest.

In the second stage, known as the ‘Middle Stage’, the participant is determined to achieve and complete the task in the sport they have chosen, as they have turned more serious and responsible. The parents’ role now has changed to a facilitator over their support in many factors such as investing time and financially backing their children. The final stage according to Bloom is the stage of ‘Perfection’ due to commitment and maturity, the athlete has reached their highest and they will be perfecting their developed skills with the coach who acts as a fundamental adviser. A simplistic version of Bloom’s model can be found in Figure 2.1 Is important to underline that none of these stages are determined by age, but are based on the accomplishment and proficiency of certain tasks².

Even though Bloom’s study achieved enormous progress on talent development, it is important to recognise the limitations with this model. For example, it was carried out in a North American structure (Wolstencroft, 2002) which is different from the perspective of TD in other countries such as Jordan and other Middle Eastern countries. In other countries, the procedures to help the athlete development are completely different from American systems. For instance, the networks of support inside the United States differ completely from those used in Jordan. It is almost impossible to compare and pinpoint all the differences between them, because the first one comes from a completely developed

² For more details on the model, refer to Bloom (1985).

country in contrast to, for example Jordan, that is currently still under development with respect to sport infrastructure and facilities. Specifically, stadiums in Jordan are old and no significant improvements or additions have been made to them since 1999. This, in turn, does not allow Jordan to host international tournaments such as the Asian cup. Bloom's model also appears to be not appropriate for the Jordanian context since it ignores most of demographic features (i.e. population growth and fecundity), as well as the cultural differences including the willingness of females to play football in public. Moreover, at that time, football in the Arab region was significantly bypassed by its counterparts in the developed countries such as the United States. The conducted research has shown that the discrepancy in results for performance between these regions can be attributed to the missing essential elements of TD required for improving the performance of football players in the Arab region. Bloom's model does not account for the need for direct family interferences from the family of a player in a country such as Jordan. This, in contrast, is expected to trigger the need for a deep examination of the performance of the Jordanian players since they are already deeply linked to their families. In other words, players in Jordan, especially young players cannot take decisions related to career path without referring to their families. That case remains during their life cycle even if they become more than 18 years old. In other countries, such as the United States and the UK, young football players are more able to freely shape their future and take decisions once they become mature and reach the legal age.

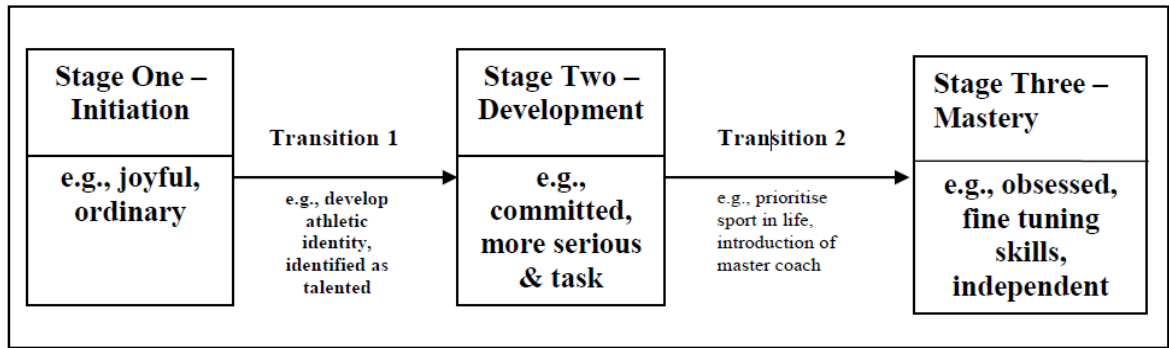


Figure 2.1 Simplistic version of Bloom’s (1985) stage model of TD (Adapted from Bloom, 1985).

However, it is worth mentioning that Bloom’s model has been analysed and supported in order to broaden and add stages (e.g., Cote & Hay, 2002; Durand-Bush & Salmela, 2002; Scanlan, Ravizza, & Stein, 1989). Numerous researchers (e.g. Abernethy, Cote and Backer 1999; Cote 1999) took Bloom’s model and refined it focusing particularly on explaining how great the impact of the family on the athlete is. This leads to a three staged study based on the theoretical framework of Cote (1999) (see figure 2.2) which stated that improvement of skills implies work with different types of strengths including effort, motivation and resources.

Cote’s (1999) first stage, known as Sampling Years, aimed for children who are just entering the sports world. Aiming at complementing Bloom’s model that does not specify any age range, this stage takes place with children between 6 to 13 years of age whose parents take an extremely important role by allowing them to discover and try different kind of sports to test their skills.

| Sampling Years (Age 5-12) | Specialising Years (Age 13-15) | Investment Years (Age 16 and over) |
|---|--|---|
| Children exploring the world of sports through numerous activities rather than practicing for one specific sport. | Participant focuses mainly in one to two sports and develops techniques through a structured training programme. | Athletes focus only on one sport showing a higher commitment to it through a high amount of practice. |

Figure 2.2 Development Model of Sports Participation (Cote 1999; Cote and Fraser-Thomas 2007).

This makes it easier for the children to opt for the sport they want to specialise in and it will imply more deliberate play than deliberate practice. By having the freedom for exploration defined by recreational enjoyment, children are able to organically decipher the particular sporting activities that they enjoy most and also enjoy the most success from. However, it is important to recognise sport specific differences with regards to the sport journey. For example, in football there may be crucial goals referring to age. In order to address this point, Ford et al. (2009) referred to the “early engagement hypothesis” where it was found that playing and practicing football as the main sport at early ages may significantly contribute toward the development of expert performance in English soccer.

This study found that successful football players, compared to their less successful counterparts, invested more time in deliberate play and practice for their primary sport during early engagement. Sampling didn’t appear to distinguish ‘successful’ verses ‘unsuccessful’ players, therefore, the importance of “sampling years” and the importance

on multi-sport exploration is challenged by Ford's early engagement hypothesis when specifically looking at football sporting activities during this stage of childhood development.

Further, an example of an early specializing sport is gymnastics, where it is likely for the gymnasts to accomplish full success in world championships at a much earlier age than you would in for example, football or later developing sports. This point provides further evidence that types of sporting activities can greatly affect the form and consequence of the sampling stage and multi-sport exploration.

Cote's second stage, known as "Specialising years" was found to occur for children between 13 to 15 years of age. At this stage athletes start to focus and specialise on one or two sports. Thus their skills will be developed at the same time with their techniques by a well-structured training program. They will experience a decrease in sport and will have the same amount of both deliberate play and deliberate practice. The children have goals set now and are determined to play in order to reach certain targets. They are not playing just for entertainment. The support and commitment of the parents becomes a key for the athlete's development; for example, they invest their time in taking their children to training and if applicable, to competitions.

The third and last stage in Cote's (1999) model is "Investment years", where the athlete is 15 years old and over. Most of the participants are focused now on only one sport and they show a stronger commitment to it. In his model, Cote (1999) states that in order for the athlete to achieve complete success in the chosen sport, a consecutive practice

combined with quality as well as a strategic programme and training are crucial in the athlete's progress.

Implications from the Developmental Model of Sport Participation (DMSP, Côté et al., 2007) (see figure 2.2) includes two different pathways of achieving the elite performance: one is the early “specialisation” pathway influenced by Bloom's (1985) model, correlated with the deliberate practice concept of focusing since an early stage in a single sport and reinforcing it with specific training that would increase later on across adolescence and adulthood. Cote et al. (2007) maintained that varied participation may contribute a wide stock of physiological capacities, perceptive-tactical abilities transportable through associated sports. In line with this, the second pathway is the “diversification” that refers to the development through Cote's three stages (“sampling” 6–12, “specialising” 13–15, “investment” 16+ years) (See figure 2.2) since the moment the children starts to be involved in multiple sports with a small amount of deliberate practice and large amounts of deliberate practice with little amount or no deliberate play at all. While it is now recognised that there is a large variation to the structure of successful athletes' practice history, the sport context and understanding the pros and cons of each ‘typical route’ can be useful.

Furthermore, Durand-Bush & Salmela's (2002) study identifies numerous similar components associated with effective TD in sports that could include socio-cultural factors (e.g. the role of parents, coaches, friend/teammates, supporting staff and other athletes), personal characteristics (e.g. self-confidence, motivation, creativity and perseverance), training (i.e. technical, tactical, physical and mental preparation) and competition factors (e.g. planning, evaluations, coping with pressure, expectations, and

adversity, and focusing on the process rather than the outcome of events). This led the researchers to add a new stage, building upon Cote’s (1999) model: they proposed “maintenance years”, a stage which is aimed for the time when the athlete has reached a higher level of performance. Their study involved ten elite athletes who won gold medals either in world championships or at the Olympics.

| Sampling Years (Age 5-12) | Specialising Years (Age 13-15) | Investment Years (Age 16 and over) | Maintenance Years |
|---|--|---|--|
| Children exploring the world of sports through numerous activities rather than practicing for one specific sport. | Participant focus mainly in one to two sports and develops techniques through a structured training programme. | Athletes focus only in one sport showing a higher commitment to it through a high amount of practice. | Athletes have reached the upper level of performance, setting up goals to sustain and enhance their skills. |

Figure 2.3 The Durand-Bush & Salmela (2002) 4 Stage model.

Although all these models and stages that track the athletes’ development from when they enter the world of sports at an early age until they become skilled elite athletes have been improved by numerous researchers over the years, the models have still received some critiques regarding their narrow vision on such an active and diverse field as the nature of talent, which makes the process of the athlete’s growth less comprehensive and cannot apply to all contexts (e.g. Abbott & Collins, 2004; Elferink-Gemster et al., 2004; Vaeyens et al., 2008; Martindale et al., 2005). For example, Abbott & Collins (2004) affirm that successful TD has more to do with the athletes’ conduct and the way they interact with

the development environment as well as the ability to enhance their development chances.

Gagné (2011) provides a model and operational definition of talent development, referring to the Differentiated Model of Giftedness and Talent (DMGT). The basic model introduced the relationship between giftedness (possession and use of natural abilities, or “aptitudes”, in at least one particular domain) and talent (mastery of systematically developed abilities, or “competencies”, in at least one particular domain). These definitions allow for the understanding of talent development as the process of transforming natural gifts or aptitudes into the exceptional knowledge and skills required for the particular field the gifts or aptitudes relate to. Importantly, Gagné’s model includes those two vital explanatory mechanisms—intrapersonal catalysts and environmental catalysts—either facilitate or hinder talent development. Gagné’s model therefore introduces the dual importance of both the environmental and the intrapersonal when considering the aptitudes and mastery (talent development) of a domain of human activity. Within the intrapersonal factors (a subset of catalysts to the developmental process), are both the traits of the individual and the goal management abilities. The traits are physical (appearance, handicaps, health), or mental (temperament, personality, resilience). The goal management skills include awareness (between the self and others, one’s strengths and weaknesses), motivation (values, needs, interests, and passions), and volition (autonomy, effort and perseverance). These variables in Gagné’s model directly affect the developmental process which includes activities (i.e. access), progress (i.e. stages), and investment (time, money, and energy). As such, the generalised model provided by Gagné significantly develops the theoretical importance of intrapersonal

conditions for talent development in addition to environmental factors. The model leads to further studies which look at the minutiae of certain subsets of intrapersonal behaviour, such as the emotional or cognitive. For instance, MacNamara et al. (2010) emphasised on the role of as assessed the role of some psychological factors in shaping the sport performance in a sample of 816 participants who practice different individual and collective sport activities in the Spanish area of Castilla-La Mancha. Their study sample comprised both young males and females from 12 to 18 years old. This study found significant effects on performance when considering psychological characteristics of participants. Specifically, the study uncovered significant differences in the impact of the physiological factors on sport performance. That is, the impact of mental ability is found to statistically differ among male who play football who in turn gain low scores and those who practice swimming and athletics while receiving high scores. Additionally, the differences in team cohesion are also observed that male sportsmen who practice football receive lower scores against the higher scores obtained from the Volleyball players. This study provides further evidence for the thesis that psychological (including both the emotional and the cognitive) factors have a significant statistical weight on talent development and are to be considered when modelling TID and TD in athletes. It could be argued that some of the statistical differences seen between male and female athletes could be attributed to sociodemographic conditions, a further factor to consider in studies of TD, in conjunction with psychological attributes of players.

They found some differences in the psychological characteristics of stress control and impact of performance evaluation for which men gain higher scores than women.

Additionally, with respect to men, their study found some statistically significant differences in the aspects of mental ability and cohesion between the team.

Waleriańczyk and Stolarski (2021) examined the role of personality in sport performance. They found a strong link between the expected and actual performance in perfectionistic individuals.

These studies and others highlight the potential importance of intrapersonal characteristics as stated in Gagné's model (2011). Gagné paved the way for more studies to be conducted on TD influences, which were not merely focused on the environmental, but investigated the dualistic effect of the environmental and the intrapersonal on talent development.

2.2.2 Important factors that make expert performer

2.2.2.1 Deliberate Practice

One of the important factors in the TID process is deliberate practice (Ford et al., 2015). Deliberate practice is the concept that practice can lead to improvements in performance and the attainment of expertise. It holds that the amount of time an individual dedicates to a particular activity is proportional to his performance level. This concept in brief can be described as “practice makes perfect”. When applied to sport, deliberate practice has been proven to lead to high level performance and experience. In one of their earlier studies, Ericsson et al. (1993, p.7) argued that ‘the distinctive characteristics of exceptional performers are the result of adaptations to extended and intense practice activities that selectively activate dormant genes that are contained within all healthy individuals’ DNA’. Ford et al. (2015) stressed that deliberate practice as systematic and consistent

engagement in sport activities is the optimal way to improve performance and achievements with its relevance being dependent on the stage of the athlete. These authors argue that it is not innate characteristics that make a player achieve elite-level, but rather deliberate practice or even the proposed ten-year rule or 10,000 hours of deliberate practice that an athlete should complete in order to reach expert performance. It is not to say, though, that deliberate practice as the main or only indicator of expert performance has not been critiqued. Tucker & Collins (2012) explore the relative contributions of genetic abilities versus training. This study concludes that the minimum volume for training required to attain elite level performance (specifically, the 10,000 hour rule) is flawed due to the significant aggregate difference in training times between individuals at similar performance levels. They conclude that relative importance of training differs greatly for different sports, wherein some sports have genetic factors are a more significant determinant in elite performance attainment than others. They suggest a model that defines training as the realisation of already existing genetic potential.

Additionally, Ericsson (2020), in review of the previous 1993 study, found that the definition of “deliberate practice”, which initially evolved from a study regarding the guided solitary practice of students at an elite music academy, could not be replicated in the sports context. The “optimal practice” of the music student could not be then found in a “training athlete”. Any one activity could not meet all the criteria required for “deliberate practice” in sport. This study argues that the different types of practices which have an effect of attained performance should be defined specifically instead of under the umbrella term of “deliberate practice”, stressing a more individualised approach to

effective training, and the wideness of scope in different practice activities that can weigh heavier or lighter on the development of elite performance.

Of course, as described earlier, Côté et al., 2007 also challenged the concept of Ericsson's deliberate practice model in his stage model which delineates between the sampling, specialising, and investment stages with a proposed proportional amount of deliberate practice found in each stage (Figure 2.2). This study connects the stages of development with the theory of deliberate practice and its respective effect on such development. This study will inform the discussion of the literature below.

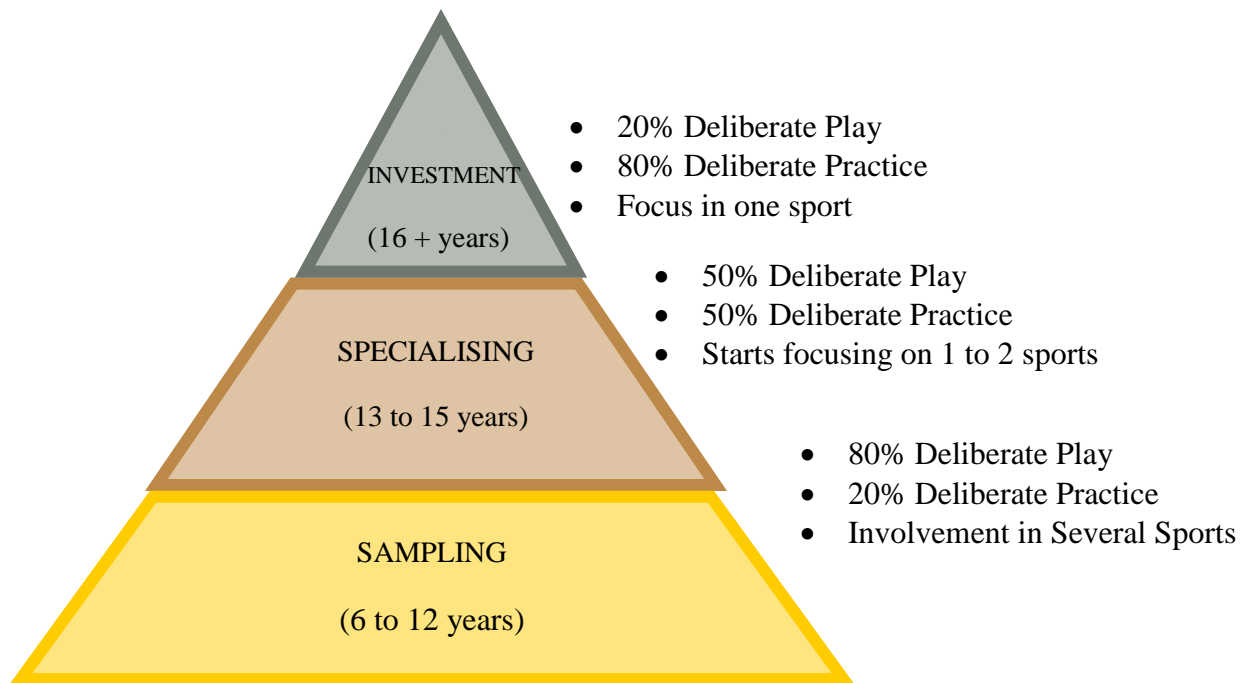


Figure 2.4 DMSP Cote's stages of sport development

In their systematic review, Baker and Young (2014) highlighted the importance of considering deliberate practice in the development of elite sport performers. They, however, argued that the understanding of the relationship is still far from being complete due to the methodological and design of the conducted studies in the literature.

Specifically, that missing understanding is linked to sport skill acquisition emphasising the role of deliberate practice in differentiating between expert and non-expert athletes. Regarding the methodological flaw, the review highlighted the need for a rigorous model which can in turn evaluate the changes in developmental and contextual factors. Within a meta-analysis, Macnamara et al. (2016) found that deliberate practice accounted for only 1% of the variations in performance among elite-level performers. These studies then shed some light on the striking role deliberate practice can make while clearly identifying there are some obstacles facing its applicability in practice, such as the methodological flaws addressed above. To address this issue further, as highlighted above in Cote's (1999) model, another related factor has appeared in the sport literature alongside deliberate practice, namely deliberate play. Deliberate play refers to distinct physical activities during childhood that the children decide by themselves to be involved in and are not regulated strictly by an adult, for example street soccer, or backyard basketball. These activities, and their important effect on talent development, suggest a resistance to traditional determinants for talent development which include a focus on ability, environment, economic considerations, responsibilities, and strict scheduling. Instead, deliberate play emphasises increased freedom, social cohesion, and a resistance to rigid general societal structures suggested to be ultimately required for elite talent development. These have rules established by the children themselves or an adult involved in the activity (Côté et al., 2007). Such activities are designed to improve the enjoyment in the youngsters and in contrast from deliberate practice, these kind of activities produces instant satisfaction for the athletes and thereby in combination with childhood and adolescent sport play in many sports encourages them to a higher level of

commitment which will lead them to beneficial long-term TD (Rees et al., 2016). Côté's DMSP model (Figure 2.4) emphasises the importance of deliberate play in conjunction with deliberate practice, particularly in the sampling and specialising years, in which deliberate play has a 80% and 50% share in the type of activity required for the respective stages. Deliberate play thus enjoys a majority share during the sampling years, an equal parts share in the specializing years, and only wanes in proportional importance in the investment stage of talent development.

However, there can be variations in this rule because the popularity of a sport and the achievement certain sports can break this rule (Cobley et al., 2012). It is possible that the kind of sport and the level of mastery required can result in athletes breaking this norm. A clear example has been standardised throughout UK Sport's national talent system by Sporting Giants. They chose Helen Glover aged 26 in 2008. Later on in London 2012 she became Britain's first female Olympic Gold Medallist in rowing; it would clearly have been a challenge for her to have been able to complete the 10,000 hours of practice in these four years. Further, more studies have been supporting this (Baker et al., 2003; Baker et al., 2014) and many others have been investigating the relation between the quantity of hours of practice and how high a performance they can accomplish in sport (Baker, Cote & Abernethy, 2003; Ericsson, 2015; Keith & Ericson, 2007, Erikstad et al., 2018).

Even though it has been supported by numerous researchers, and made significant contribution to the Talent Identification and Development debate, deliberate practice has some restrictions, for example sports like gymnastics support the idea of a need for early specialisation and frequently reach maximum performance level before puberty.

Moreover, this practice has been criticised because it can affect the athletes' development in a negative way due to the intense hours of hard training in the early initiation in sport. The consequences include burnout and injury that besides rendering lower levels of achievement, can actually leave them to drop out. Ericsson (2020) concludes that future models of expert performance need to be specific to a particular sporting event or domain. Further, these models should include the individual in question's practice histories, including the amount and quality of engagement. They should include interactions between genes and particular types of practice (moving away from a generalised "deliberate practice" definition).

The TID process should be guided not towards a continued focus on the frequency of training, but instead on the type and quality of the training itself. This, in turn has to trigger the need for considering other factors related to the individual characteristics. In other words, quality and quantity of deliberate practice is not likely to be enough to secure the excellency in sport performance for many individuals. Tucker and Collins (2012), discussed above, confirm that deliberate practice or training practices as such are not secure determinants of elite sporting success. Like Ericsson (2020), the study confirms the importance of genetic factors, type of sport and practice, and amount and quality of practice being more indicative features of talent development than deliberate practice alone.

2.2.2.2 Individual characteristics associated with sporting success

With respect to sports, where intensive body training is an essential tool in athlete development, much lively research has been dedicated to the relation between personality and sporting success. Individual characteristics and psychological traits that are relevant

in talent identification refer to factors such as motivation, determination, self-confidence, goal-setting, and imagery (Gould et al 1992).

The correct application and utilisation of these characteristics and psychological traits to the athlete's practice has been proven to be essential for the athlete to reach an elite level in their sporting development. Additionally, development of these individual, psychological skills has been shown to help differentiate players from each other, thus aiding the transition to expert level performance and competing.

2.3 Personality traits and sporting success

Personality is the sum of both physical and psychological characteristics in an individual (Peterson, 1998; Allen et al, 2013; Piepiora, 2021). Early research revealed how important the effect of personality in sports through improving utility in forecasting important and nice outcomes of sport behaviour such as individual performance, reactions to failure and the athletic achievement in the long run (Aidman & Schofield, 2004). Understanding personality is very important in sports and coaching, because as an athlete, understanding the implication of personality and its likely reaction on performance is highly relevant to give appropriate feedback on how athletes should be treated before and after matches. Coaches have the need to understand the personality of athletes in order to improve communication and guide them in a better performance. The coaches noticed the significance of other individual characteristics existence of willingness to work hard, as well as being naturally gifted and being in an environment with the opportunity to access good coaches. More practically, early consent has come up between trait researchers with reference to a five-factor model of personality (Costa & McCrae, 1992; McCrae & Costa, 2003). The Five Factor Model of Personality (FFM)

identifies extraversion, neuroticism, conscientiousness, agreeableness, and openness to experience as the dimensions of personality. Furthermore, Kannyan et al. (2015) expands on the importance of dealing with personality traits in the TID. They start out by emphasising the connection between body and mind and proceed to investigate the importance of personality traits in sporting success by comparing athletes with non-athletes. They developed a self-reporting questionnaire which was used to collect data on personality traits in their study subjects. The authors included in their study personality traits such as: aggressiveness, realism, apprehension, radicalism and control. Their study revealed that athletes scored high on these personality traits as compared to non-athletes. This finding then sheds some light on the importance of considering personality traits in the sport environments. Kannyan et al. (2015) attribute their results to the fact that athletes are more self-assured (i.e. aware of their skills and performance) than their non-athlete counterparts. In another study, Laborde et al. (2016) stress the positive relation between sport participation and success and personality traits. The authors employed a series of questionnaires aimed at investigating athletes' personality traits such as perseverance, positivity, resilience, self-esteem and self-efficacy. Their study revealed that athletes scored high on these personality traits as compared to non-athletes. Further, based on their results, these authors emphasise the importance in sports of personality traits such perseverance, self-esteem and self-efficacy. Positivity was also shown to be highly relevant in talent development.

Laborde et al., (2020) developed a systematic map of trait-based assessments published in 10 sport and exercise psychology research journals. Sixty four discrete traits were found to meet the inclusion criteria, connected with fifteen "higher-order" themes for trait

definitions. The themes identified were: self-confidence, self-consciousness, emotional intelligence, negative and positive affect, rumination, optimism, aggression, competitiveness, perfectionism, independence, mindfulness, defensiveness, narcissism, and impulsiveness. The traits fell into these thematic categories, and the results demonstrate that the most consistent traits appearing were: anxiety (18.2%), self-efficacy (17.6%), perfectionism (9.8%), social physique anxiety (4.3%), and depression (4.2%). Considering themes, the most consistently addressed were: negative affect, self-confidence, perfectionism, competitiveness, and self-consciousness (ranked in descending order). Among the suggested research agendas in the review, one recommendation highlighted for a gap in research regarding the moderating role of personality in experimental research in exercise and sport. Another recommendation stresses that definitions of traits in sport and exercise research have been investigated, but the measures for these traits have not been critically validated.

In order to develop the dimensions of the personality traits further, Cetinkalp et al. (2011) focused in their study on goal orientation and self-efficacy as factors in sporting success in football. Building on earlier research, Cetinkalp et al. (2011) found that self-efficacy is an essential personality trait in successful football players. Goal orientation and self-confidence are determining factors in football players' development and future success. Self-efficacy is also highly relevant to football as team sport because it is revealing of productive team play as well athletes' being active and fit for sport. Based on the results of their investigation, Cetinkalp et al. (2011) stress the importance of goal orientation and self-confidence in talent identification and development. The goal orientation factor has to be linked to senior progression. For example, one study by Mills and colleagues (2014)

was conducted examining the perspectives of players within the Elite English Football Academies regarding their development environments. Fifty UK-based male academy football players were interviewed and 65% of respondents felt that they were written off before having the opportunity to reach their full potential. Other cited qualities of successful TD in this study included a whole person approach to development and prioritising player wellbeing. The study itself emphasised the need for academies to consider the psychosocial environments of football academy athletes specifically to understand success and links to senior progression. One of the key areas that was found to need improvement in elite player development environments was “understanding the athlete”, in which coaches and support networks show interest in the life of the athlete outside of football and can have conversations about the athlete’s overall well-being. This category of development is most closely tied to personality aspects of a developing player—they address the individual as person rather than player. A third of players revealed that their coach rarely spoke to them about their well-being, and rarely takes an interest in their life outside of sport. Furthermore, another area related to personality found in the study is related to preparation. It was found that improvement was needed in creating an environment where players are capable to play for how to cope with things that may go wrong.

Concerning the role of personality in football in emerging countries, Tran (2012) found that conscientiousness and neuroticism are among the big five personality factors that significantly forecast football ranks across 50 states in the United States. Partially consistent with this study, Teshome et al. (2015) found that Conscientiousness as one element of the personality positively affects the football sport performance in Ethiopia.

Other components, however, namely extraversion, agreeableness, neuroticism and openness are found to leave only economic impacts on the performance of the participants. For the analysis conducted in 10 homogenous samples including football, Piepiora (2021) found that victors of team sports were with low neuroticism, high extraversion, and openness to experiences in compared to other athletes. Yet, Piepiora (2021) documented that the role of each of the big five elements depends on sport category.

2.4 Psychological characteristics of developing excellence (PCDEs)

Höner et al. (2016) investigated the relation between the psychological traits of successful athletes and their performance with respect to football. They start out by assessing that previous research on this topic is scarce and therefore further in-depth study is much needed. They stressed the importance of future study focusing on research design, such that results would not be contradictory but rather reliable for talent identification and development. Höner et al. (2016) investigated the importance of motivation, volition, self-referential cognition and emotion and their relevance in sport talent identification models. These psychological characteristics were considered with respect to their specific dispositions and skills. However, their results show that the probabilistic information of such diagnostics is small for the purpose of talent identification. Using the psychological traits-based questionnaires, coaches can support talented athletes develop to adequate performance levels. Musculus and Lobinger (2018) found that the education of coaches regarding psychological diagnostics of players, and a facilitation of their cooperation with sports psychologist, could work to promote a higher quality of standard regarding psychological diagnostics in talent development programs.

Athletes that have reached the elite level were shown to share determined cognitive traits that distinguish them from the athletes with less effective results (Ericsson 2004). Abbott and Collins (2004) determined psychological factors connected to successful TD which involved goal setting and goal commitment, motivation, imagery, self-efficacy, and performance evaluation that previously were related significantly to successful TID. In their study, Macnamara and Collins (2012) identify the mental skills as one of the main elements to make champions. They argue that psychological features of developing excellence are found with aspiring elites who have the mental skills, attitudes as well as emotions to deal with the challenges of the development pathway. Their analysis has resulted in developing a questionnaire to measure these important skills. More recently, Hill et al. (2019) highlight that TD environments can use a valid measure of PCDEs from which effective psycho-behavioural interferences can be made, and help to inform methods to improve the effectiveness of TD processes.

Hill et al. (2019) argue that talent identification must include criteria that identify individual characteristics and psychological traits that are associated with success in sport. As an example, they point out that some attributes linked with mental health and clinical issues have been shown to act as a barrier to effective development, as they obstruct athletes from developing their skills and achieving targets. As such, Hill et al. (2019) assess a specific questionnaire (i.e. the Psychological Characteristics of Developing Excellence Questionnaire version 2 – PCDEQ2) that aims to be a valid and reliable measure of psychological and behavioural traits (adaptive, mal-adaptive and dual-effects) that would enable coaches to identify potential athletes and guide development. These authors identify certain factors that are very indicative of individual

psychological skills that influence athlete performance. Athletes who score high with respect to the factor Adverse Response to Failure are very likely to display a low progression in sport. The factor Imagery and Active Preparation, where focus and mental preparation play a key role, shows that athletes are more likely to perform well if inspired and motivated (Hill et al., 2019). Other factors relevant to identifying athletes whose psychological and behaviour traits clearly distinguish between the expectation for high performance and for low performance are Self-Directed Control and Management, Perfectionistic Tendencies, Seeking and Using Social Support, and Active Coping. More recently, Williams et al. (2020) highlighted that the processes associated with the identification, selection, and development of players are transcended by ethical considerations. The overall development and well-being of young players should be the primary concern of those involved and the process should not occur at the expense of physical and emotional health and growth e.g. concerns over early specialization or the identification of players in childhood into development environments the high rate of annual de-selection in youth academies and the low rate of progression of young children in academies to professional status, the potentially negative effects on players of some development processes and being deselected, the relative age effect, and autocratic coaching behaviours.

2.4.1 Self-regulation

Personality can affect many features in sport performance and one of these affected features is argued to self-regulation (Morosanova 2013). Self-regulation is defined as the process that enables individuals to control their thoughts, emotions and actions. Self-regulation along with motivational orientation are two particular traits that have been

discovered to be the most interconnected to a successful TD because they are the most essential conjunction inside the developmental sporting understanding of athletes (Reverberi et al., 2021).

More specifically, concerning the performance of youth football players, Jonker et al. (2010) focus on the relation between the elements of self-regulation namely self-monitoring, self-efficacy, planning evaluation, reflection and effort, and performance in sport. Their results show that elite football players are also high academic achievers because they are actively engaged in self-regulatory skills. The authors also point out that, anecdotally football players are perceived the opposite, as academic non-achievers. They attribute this stereotype to the fact that many elite football players do not complete their academic programmes. Elite football is associated with a high development of cognitive abilities, which in turn is a reflection of self-regulation. Toering et al. (2012) investigated the relation between self-regulated learning and training in football and performance level in this sport. The authors discuss how in talent identification coaches are more inclined to look in athletes at speed, endurance and technique. They stress that their study aimed to show that the importance of personality traits such as self-regulation should be considered by coaches as highly relevant in talent identification and development. Erikstad et al. (2018) found that highly self-regulated players were more likely to be selected for national initiatives, and to be involved in peer and adult led football practices. Their involvement in childhood football practices led to the interesting result that demonstrated that childhood sport participation can contribute to the later difference in levels of self-regulation, and these findings are important as self-regulation

has been shown to differentiate between elite and non-elite football players (Gledhill et al., 2017).

In their recent study, Cumming et al. (2018) investigated self-regulation as well as biological maturity and relative age in football players and aimed to show that self-regulation is directly connected with long-term performance in football players. Their results show that self-regulation is an advantage in TD and success in football. Participants were presented with a football specific questionnaire (i.e., Football specific self-regulated learning questionnaire FSSRLQ) as well as psychological data questionnaire. The results of this study further confirmed the role of self-regulation as a strong determinant of success in talent development.

While the athlete is going through the TID models previously reviewed (i.e. Bloom, 1985; Cote, 1999), self-regulation is crucial in their development where also parents and coaches are involved. Gledhill et al. (2017) reported that coaches and other stakeholders can benefit from understanding what self-regulation as a trait is, and how it can influence a player's later talent development. The study also discussed how players could benefit if coaches gain understanding for how to support players' self-regulation development, and therefore their general talent development. At the early stage the parents' role is also very important as they have to encourage the child and grow their commitment to sport, giving moral support as well as taking them to their respective training. The above-mentioned study also includes parental involvement in developing self-regulation skills alongside coaches. Nonetheless, while the athlete advances in their way to expertise, they become self-sufficient when it comes to their needs and have capacity to keep track of their development and control their emotions (MacNamara &

Collins. 2012, Reverberi et al., 2021). It will be of high importance to see self-regulation reflected in Jordanian sport in general and in Jordanian football players in particular since so far no significant achievement has been recorded because nearly all of the outer and inner factors of effective development are non-existent in the Jordanian environment. More specifically, the poor system and structure in Jordan requires further improvements. Doing that should enable the athletes to take on more responsibility and self-regulated learning to be successful.

2.5 Environmental factors of TID³

2.5.1 The Relative Age Effect (RAE)

The Relative Age Effect (RAE) is defined by Barnsley et al., (1985) as the age differences between individuals in the same year. In many sports it is found that players are grouped together by the year they were born to make sure they obtain the same chances to attain successful opportunities. However, this can mask cognitive, physical and emotional differences between athletes (Cobley et al., 2009; Weir et al., 2010; Skorski, et al., 2016). For example, to understand more this phenomenon in the sports where the players are grouped depending on the years they were born, between the children born early January and the children born in December it can be a gap of 11-12 months. This can put the children born in December at a disadvantage when performing a task because they have not reached the physical and cognitive maturity of the children born earlier in the same year.

³ Based on Li *et al.*, (2014), I review only four environmental factors.

Research in this area has shown that RAE is not limited to one sport, where ice hockey, for example, became one of the most popular. Barnsley et al. (1985) conducted their study to analyse the birth dates of the participants in the Ontario hockey league, western hockey league and the National Hockey league in the 1982/1983 season in Canada. Cogley et al., (2009) found that, RAE is applicable to many other sports. They find reverse RAE in sports like gymnastics where the weight and the height play important roles meaning that younger athletes surpass the older participants. Cogley et al., (2009), a review of the literature regarding Relative Age Effect, found that RAEs are robust and prevalent over all the sports examined to date. This includes ice hockey, football, basketball, cricket, rugby, netball, gymnastics, baseball, volleyball, and swimming. The relatively young members of an age group were found in this study to be consistently disadvantaged. The study concludes to say that the presence of RAEs contradicts the goal of elite athlete development.

It has been widely researched in football how the RAE can be of high impact on a player; different studies have observed this effect in diverse European countries like Belgium (Helsen et al., 2005; Vaeyens et al., 2005; Helsen et al., 2012), England (Kelly et al., 2010), Scotland (Dugdale et al., 2021), Spain (Del Campo et al., 2010; Yague et al., 2020), Germany (Grossmann et al., 2013, Votteler and Hoerner, 2014, Götze et al., 2021), France (Delorme et al., 2010), Switzerland (Romann and Fuchslocher, 2013), America (Jones et al., 2019; Heneghan et al., 2019) Netherlands, France, Italy, Denmark, Portugal, Russia and Sweden (Doyle et al., 2019; Yague et al., 2018; Bezuglov et al., 2019). However, another strand of literature documented transient pattern in the RAE's effect on sport performance. For example, Cogley et al. (2018) found that performance advantages

associated with relative age in swimming are transient. Another study by Cobley et. al. (2018) example, a study by de la Rubia et al. (2020) found that the short-term individual performance as well as collective performance were more impacted by the RAE, though this influence tends to be minimal when the long-term individual performance is considered.

In addition, these studies have shown that RAE significantly affects talent identification in football due to the coach's selection of the players and choosing the ones that stand out in relation with respect to age-based group performance.

More specifically, Sarmiento et al. (2018) examined 70 manuscripts and stated that players between 6 to 8 years who were born in the early months are more likely to receive much better coaching than to those born later in the same year. For example, García-Álvarez & Salvadores (2005) carried out a study where a gap up to 10 centimetres in height and 10 kilograms difference was found between the 14 year old participants. Skorski et al., (2016) documents how players who are born on the first months of the year have more possibilities on becoming professionals than to those born on the last months. Conversely, Gonzalez-Villora (2015) conducted a study that indicated that when the Relative Age effect refers to athletes performing at an elite or professional level, it enjoys a lesser impact than in youth elite levels, such as U-17.

In a more recent study Doyle & Bottomley (2018) shows how no country or club can be exempt from the effects of RAE, while analysing two groups of elite soccer players⁴. In the first one they grouped the top 1000 professionals and the second group was formed

⁴ However, it can be in some cases. Yet, the system supports the bias towards high performing age-group players.

by UEFA under 19 Youth League. It was found that whereas the majority of the athletes were born in the early months (born at the start of the competition year), they did not enjoy a higher transfer value, nor were they given more game time when compared to players born at different points of the year within their cohort. Therefore, RAE was found for frequency in this study, but not for value. In order to find possible solutions to minimise the RAE, Andronikos et al., (2016) suggest a new way to arrange the athletes within sports by skills, weight, age and size and also acknowledge and rank long-term development above short-term success. On the other hand, habitually young athletes are grouped by chronological age (CA) with the aim of competition and training. Children of the same chronological age can yet, fluctuate in biological maturity with some individuals maturing at a higher or slower pace to their peers.

Yet, the need for alternative grouping has been triggered by the finding of the recent studies on the reversal RAE impact. Among these while evaluating the RAE in professional futsal player, Lago-Fuentes et al. (2020) observed the effect prevails the most in the high and medium level teams and tends to exist the most for the goalkeeper position. Additionally, the study found a clear evidence of effect reversal throughout the seasons. Their study suggests that the RAE effect has to be more related to the maturation. The later instead can be used as a new grouping proxy in different kinds of sport.

2.5.2 Bio banding

Building on this, the area of bio-banding also appears in the TD literature. Bio-Banding is the method of grouping athletes on the foundation of attributes related with growth and maturation instead of grouping them by biological age for determined training and

competitions. Bio banding attempts to create an environment in which athletes who mature early or later can thrive. It is the process that groups athletes based on attributes associated with the concepts of growth and maturing as opposed to strict chronological age.

Researchers have stated that regulating the discrepancies linked to maturity, for example, size, abilities and strength leads a substantial competitive equity and, thus, a minimized risk of injury (Baxter-Jones, 1995; Gallagher, 1969; Malina & Beunen, 1996; Seefeldt, 1981). Clear examples of Bio-banding can be found in combat sports like boxing, taekwondo, judo where the weight and age of the athlete are taken into account as well as in rugby and American football. Early work examining the implementation of Bio-banding in football appears to encourage positive experiences. Individual variances in growth and maturation are crucial to the identification and development of talented youth soccer players (Cumming et al., 2017). That is to say, bio-banding can be seen as an effective approach in addressing talent development and identification in football as chronological age can bear much less importance than independent physical growth and maturation of an individual athlete.

Several studies also address the importance of Bio-banding in practice. Abbot et al., (2019) indicate that bio-banded competitions changed the technical need set onto athletes compared to chronological competition, without lowering the physical requirement in his study applied to twenty-five elite soccer youth players between 11 to 15 years participants of an English Premier League soccer academy. Except for goalkeeper and Centre back positions in youth soccer, where possessing a height higher than average in

beneficial, the body size has restricted repercussions on the athlete's performance and selection (Malina, 2003; Vaeyens et al., 2006).

More recently, in evaluating the existing of bio banding in the Australian rules football players, Thurlow et al. (2021) found that players who are maturing very early while they short in height still have to learn how to play with their taller colleagues. Doing that is, found to be necessary to improve the performance. In another study, Towlson et al. (2021) noticed that bio banding method has very limited impact on the height and other physical variables across the academy soccer players. Toward assessing the impact of bio-banding on physical and tactical performance indicators in youth elite players, Ludin et al. (2021) found that late maturity players are more willing to prove their technical-tactical abilities with both conquered and attack balls. Finding this led to the conclusion that bio-banding is an effective approach to improve the talent development of youth elite soccer players.

Researchers have observed two effective bio-banding examples the first being at the Belgium Football Association where they support late maturing athletes to encourage their long-term maintenance in the team. The second experiment on bio-banding has been conducted in England where they utilise the grouping by maturity and chronological age (James, 2019).

Positive and negative outcomes of bio-banding on athletes have also been explored in the literature in different contexts. Recently, a review article by Malina et al. (2019) argued that Bio-banding can be useful for both identifying and improving the talents. They also emphasis that banding can facilitate the accommodation of maturity variation while

evaluating an individual person's talent and also provide a proper environment and obstacles in which people differs in maturity status can optimally evolve. In addition, Malina et al. (2019) also stated Bio-banding is an addition to and not a replacement for CA groups. It can be applied in the short run cases such as experimental tournaments, training matches and training activities. Finding that puts some restrictions on applying the bio-banding in sport. Moreover, the study argued that Bio-banding has to be applied in samples of varying backgrounds but their height prediction equations employed in the bio-banding protocol were established on better-of American children and adolescents of European ancestry. The issue of possible ethnic variation in height prediction requires attention. To sum up, although bio-banding is important to build athlete's performance, the key issue remains that several applications across countries and sports can provide us with different outcomes. Other issues also include the inability of the bio banding to completely eliminate the maturity associated variations as well as requiring closer attention throughout the break of pubertal growth (Malina et al., 2019).

This, in turn triggers the need for considering other variations while evaluating the sport performance. Example on these include the birthplace and other factors to be discussed next.

2.5.3 Birthplace Effect

This effect, also known as the place of early development, is sometimes underestimated or given little attention in the research of sport expertise. The birthplace effect claims that the city or town the athlete is born in highly influences the chances for opportunity or for the achievement of a higher level of performance.

Theoretic formulations referring to birthplace effect are minimal (Hancock et al., 2018, Côté et al., 2021). It has been observed that population has significant importance when it comes to developing elite class athletes. Côté et al., (2007) analysed the birthplaces of 2240 elite athletes and found that the a birthplace tend to bias towards smaller cities, where professional athletes are over-represented in cities of less than 500,000 and under-represented in cities of more or equal to 500,000 Further to this, Rossing et al. (2018) investigated the birthplace effect in connection with the effect of proximity to talent clubs by examining athletes in football and handball. The results of their analyses show that proximity to talent clubs significantly influences the development to elite level in football, thus the birthplace effect in connection with proximity to a talent club is a clear predictor of athlete success. Nevertheless, Rossing et al. (2018) strongly emphasise the proximity to talent clubs as a decisive factor in talent identification and development. Hancock et al. (2018) concur that though the birthplace effect is quite a complex issue to investigate, still it has been found in talent identification and development some differences in the probability of becoming an athlete and that athletes from smaller towns are more likely to reach elite level and studies have shown that this is also related to the number of elite athletes each city produces (Côté et al., 2006). In their study, Côté et al., (2006) prove the key contribution of the city size where skill acquisition factors associated with the quality and quantity of play and practice afforded by the physical environment of smaller cities. The quality of play and practice is also argued to be an important element in their study because the physical environment of smaller cities is more important to unstructured play activities between children and more mature athletes of different ages and to experimentation with different forms of sporting activities. The

quantity of play and practice in smaller cities is also found to be a factor because smaller cities have fewer safety concerns, much better access to open spaces, and less competing sources of leisure-time use by children. To build on the critical arguments of Côté et al., (2006), Baker et al. (2009) observed that the most favourable city size in order to produce Olympic athletes in United Kingdom was between 10,000-29,000, and between 250,000-499,000 in United States, 1,000,000-2,499,999 in Canada and 2,500,000-4,999,999 for Germany. Baker et al. (2009)'s findings then shed some light on the possible impact of the size of birthplace on the final performance of the athletes and doing the analysis in small emerging countries can then support this argument.

These analyses in the developed countries can also bring some implications to the Jordanian context with numerous smaller communities spread all over the country and only one major city (Amman), with the rest of the towns being much less in size than Amman. Apart from this, parents in the small cities allow for their kids to play football outside. In the last five years or so, closed playing areas are made available where kids can wear uniform for their preferred international teams and go to these areas to join their local teams. They then go for local competitions that includes teams coming from other suburbs. This, in turn, should result in enhancing the performance of the kids in different ages and discover new talents to join the Jordanian football national teams in the future. However, the main obstacle to produce elite athletes in Jordan is the lack of financial support as well as the experience of the coaches in different sports. That mainly includes football. Hence, the Jordanian context may not replicate the findings of Côté et al., (2006) for the underestimated role of small cities in producing talented athletes.

2.5.4 The Role of the Family

There is sufficient evidence through research in TID that families have a profound effect on the athletes' development on the pathway to becoming experts (Taylor & Collins, 2015, Dove 2018, Coutinho et al., 2021, Knight 2017). It is also thought that the family carries the earliest and more dominant impact on a child in their developing process. In Jordan specifically, the role of the family in connection to the particular culture is strong and will have differing effects when considered against the backdrop of nations whose culture minimise the role of the family, comparatively. Harwood et al., (2012) show that the importance of understanding the nature of academic opportunities, promoting rewarding mindsets with substantial values and views while simultaneously developing social, psychological, emotional and cognitive growth.

Nonetheless, in the second stage (middle years) the role of the parents takes a different turn as they exercise more discipline in searching for the best opportunities, coaching and better teams such that the athlete devotes the family's resources. The family's support of their development maximises their potential (Baker et al., 2003; Knight et al., 2017). Moreover, in the latest years as proposed by Bloom, the parents' task is to support emotionally and financially while the athlete is more capable of making decisions and taking control in his pathway to talent development.

For a skilled youngster, the impact of the family can influence on how talent is acknowledged and supported so the athlete can succeed. The family becomes a significant environmental incentive in the evolution of the likely gifted into talents (Gagné, 2005; Knight, 2017). One element that could potentially have a huge effect on how talented children socially adjust is family environment, specifically the quality of the

relationship between parent and child (Paula et al., 2018). In addition, Gould and colleagues (2016) evaluated coaches' insight of the relationship amongst parents conduct and effective talent development. While they conduct the study with junior tennis players, the authors found that when parents emotionally and financially support their children (positive behaviour) the outcome is an assertive impact on talent development. In contrast, when the parents are non-supportive or show overstress winning and criticise the child, they will potentially have a negative effect on talent development. Similar to Elumaro (2015), investigating talent identification and development in the Nigerian context, the behaviour of the family (fiscal, psychological, and logistic) bears great relevance in the Jordanian context as well. The two are differentiated insofar as the Jordanian family role is primarily concerned with the economic sustainment of the individual in question, and the role of “sport” in that consideration. That is to say, the role of the family is just as strong in the Jordanian context, yet the cultural attitude towards it is more fragmented than in other (including Nigerian) contexts.

2.5.5 Access to quality coaching

Performance coaches are key planners of the coaching environment as they conduct and administer the relationship between athlete and performance. The efficacy of the coach while conducting and managing this relationship is essential to build suitable results, for example successful competition results and physical and psycho-social development. Achieving success in any discipline requires uninterrupted human resources such as coaches and supporting staff as well as material supplies (having access to facilities and/or training equipment). These are crucial for the changing process from intrinsic potential to sport expertise (Horton, 2008). The author states that the coach is crucial to

nearly all the development stages (i.e. initiation, specialising, investment and maintenance). Quality coaching is related to goal achievement. However, quality coaching depends on time and place. Effective performance outcomes are the main standards used to evaluate coaching performance. Academics have as well discussed going further in making their own criteria on coaching effectiveness (see Mallett & Côté, 2006).

Research on TD with respect to the task of the coach has increasingly gained attention among investigators in the TID area. Coaching techniques and coach behaviours are examples of the relevant features regarding the type and quality of coaching for potential athletes' skills. Prior studies have shown the beneficial use of practice time among the elements of flourishing development (Ericsson et al., 1993; Abbott & Collins, 2002; Cote, 1993). Deliberate play and unorganised sporting activities show success in talent identification and development in places such as Brazil, minimising infrastructure or economic environments as being the sole determinants for success. Thus, coaches are needed to ensure athletes proper manage their time and devote it to right activities (e.g. deliberate practice, deliberate play) in order to gather the amount of practice experience required for expert performance. The quality of the relationship between coach-athlete has been identified as a crucial element of effective results in sports coaching (Jowett, 2017).

2.6 The importance of the TD Environment

According to Martindale et al., (2005), taking an evidence-based approach for talent identification and development (TID) helps to increase the effectiveness and

accountability of the governing bodies, clubs, and academies that specialise in the development of young people. Also, literature in the field of TD and the achievement of elite status in sport indicates that the identification and development or nurture of talent are both critical factors that determine the performance of the athlete that is the peak or otherwise (see, e.g., Li et al., 2015). Currently, most of the studies about TID (see, for example, Williams, and Reiley, 2000; Abbott & Collins, 2004; Martindale et al., 2007; Bennett et al., 2018; Sarmiento et al., 2018, Barraclough et al., 2022) show that focus on talent has shifted from identification to development because it has been proven that time and resources spent on testing and searching for sports talent may not be productive. TD provides athletes with an environment where they can nurture and realise their true potential.

Yet, the main focus on TD literature has not been primarily on TDE but instead on the stages required to achieve elite status as an athlete and the experiences an athlete may go through as they try to reach elite status (Bloom, et al., 1985; Cote, et al., 2007; Durand, & Salmela, 2002). Very little attention has been placed on understanding the *modus operandi*, and overarching aims of an athlete that, according to Martindale et al. (2007), result in the effective development of an athlete to an elite status and encompasses the TDE. Henceforth, much of the effort used to be in trying to find the next big talent and TD was relatively neglected and under resourced. Recent experiments start recognising the importance of TD in improving the performances of athletes. However, only little funds have been invested to the study of the TD Environment (TDE). Different studies have been conducted on the TDE, with Martindale et al. (2005) specifying that an

effective TDE focuses on the *modus operandi* and the overarching goals of the athletes' development program.

Others such as Gagne (2004), found that a TDE must consider three environmental factors including the Milieu (physical, cultural, familial, and social), individual (parents, family, teachers, mentors, and peers), and provisions (enrichment and administrative), as well as the intrapersonal factors (discussed above). Both the environmental and the intrapersonal "catalysts" in Gagné's model provide causal explanations for differentiation in the developmental process of athletes, which leads to different levels of competence. In their study, Martindale et al. (2005) considered every aspect of coaching which they then referred to in the TD Environment (TDE). Specifically, coaches considered as part of the general stakeholders for an athlete's development, were found to require certain behaviours or features to help ensure that development. These behaviours include: providing coherent philosophies and messaging, providing clear expectations, providing stage specific integrated experiences and teaching, encouraging responsibility, helping to develop a sense of responsibility and autonomy for the athlete, and promoting personal relevance, athlete understanding, and knowledge.

Henriksen et al. (2010) investigated athletic talent development in respect to a specific track and field club, and examined the key factors that made it successful for producing elite athletes. The case study found that the reason for the club's success in output relied on specifics of its environment. These specifics were that the environment had a great degree of cohesion, a great degree of organisation of athletes and coaches, and the very important role given to the elite athletes themselves. The study concludes that the holistic

ecological approach encourages practitioners to focus on a holistic, rather than purely individual approach, in their goals to produce elite level athletes.

One year later, Henriksen et al. (2011) analysed a flat-water kayak environment in Norway since it is observed to produce successful athletes. Using different data collection methods such as interviews and analysis of documents, the study observed that the environment itself is an important element since it helps the athletes to concentrate on sport goals as well as encouraging them to be autonomous. More specifically, the environment's role is found to be centred around the direction relationship between community of the elite and the talent development process. This then is further organized by the school management. For more related analysis to soccer, Larsen et al. (2013) found that the environment reflected on the relationship among players, staff of coaches and other parties help the players to be more organized and successful. That is, this relationship is found to positively reflect on the ability of the players to work hard and being more responsible for controlling over their own training. In return, the analysed environment is found to allow for more balance between the player's daily lives in schools and sport.

Martindale and his colleagues tried to gain insight into a more holistic view of an effective TD Environment by putting together a range of relevant pieces of work. Among their conducted works, Martindale et al. (2005) argued that five main features are important during the talent development process. These are namely, long term aims and approaches, wide ranging coherence messages and emphasizes on the appropriate development process. Others also include individualized and ongoing development as well as integrated holistic and more organized systematic development process.

TID takes places in a series of stages. Several research works have identified psychological skills required for athlete development through transitions. Martindale et al. (2007) documented that effective TD processes highlight the need for systematic development of basic movement and physical skills such as balance and catching. Research also found that athlete development requires fundamental mental skills and attitude such as persistence and commitment. Martindale et al. (2007) also pointed out that the pre-requisite development of sport-specific skills as well as transition from one stage to the next with the aim of achieving excellence requires both physical and psychological development.

Martindale et al. (2010) then developed a model of guidance with a primary aim of providing a highly substantial evidence base for best practice delivery. They developed a questionnaire known as TD Environment Questionnaire (TDEQ) to measure the TD experience.

The main purpose of TDEQ is to measure the “holistic” and “generic” processes that are involved in the development of talented athletes in the long-term (Martindale et al., 2010). The TDEQ considers seven factors against a scale of 59 items that measure the experience of an athlete in their specific environments. These factors include long-term development focus, quality preparation, and communication, understanding the athlete, support network, challenging and supportive environment, and long-term fundamentals. Since its development, different researchers have sought to refine the TDEQ (Martindale et al., 2010). For instance, Wang et al. (2011) reduced the items to be 36 item, 6 -factors. Subsequently, the TDEQ has been developed and validated as a 28 item and 5-factor scale that is called the TDEQ-5 (Li et al., 2015). The factors considered include long-

term development, holistic quality preparation, support network, communication, and alignment of expectations.

To examine the factors affecting the TID further, English et al. (2018) found that structural changes being made to the South African cricketers in 2004 reduce elite playing chances and narrowed pathway choices. This also is resulted in dropping club cricket standards and ended up with making it less attractive the TID.

Another study by Li et al. (2019) directly examined between the relationship between the TID and the mental toughness while examining the main role of the satisfaction relating to psychological needs. The study found that three elements of the TID namely long-term development, holistic quality preparation and communication are positively related to the needs satisfaction. That, in turn, is found to positively forecast the mental toughness. In a reversed context, Andronikos et al. (2019) examined the factors making the athlete not able to promote to the elite level over time and found that a win focus environment is one of the main drivers of drop out. Other factors are also found to include poor communication, inappropriate support and excessive pressure.

More recently, Larsen et al. (2020) investigated the TD among male under-19 football players in Ajax Amsterdam who have good records in developing from the junior the higher-level players. The study found the environment with its specified relationship between players and community helps the player to concentrate more on dual careers comprising school and sport as well as developing mental health and acquire social-based skills and ethics at the workplace.

All in all, process of developing TID's tool is more formerly examined in other contexts without paying attention to the external factors affecting the talent development. Next section covers this practical area of TID.

2.6.1 The application of the TDEQ in practice

Martindale et al., (2013) highlighted that the TDEQ can be used as a tool to differentiate between higher and lower quality TDEs. It has also been used to study the perceptions of TDEs within football settings in the UK (Mills et al., 2014) and Sweden (Ivarsson et al., 2015). For instance, Mills et al. (2014) used the TDEQ to examine the elite English football academies development environments. The focus of their study was on the perception of players on the quality of their development environment more so at a critical stage in their progression to the professional level. They surveyed 50 elite players between the age of 16 and 18 using the TDEQ. The players were recruited from different academies of Championship and Premier league clubs. The result of their study suggested that the development environments of elite players are perceived to be of good quality. Yet, the findings suggest the necessity for academies to pay much attention to the psychosocial environments they establish for improving player performance.

Ivarsson et al. (2015) studied the relationship between TDE and the athlete well-being. In their study, they used 195 participants between the age of 13 and 16 who were enrolled in different football academies. Ivarsson and his colleagues found that high quality TDE results in high level of athlete's well-being. The association of athlete wellbeing and environmental factors have discussed before particularly the relationship between well-being and motivational climate in sports. Motivational factors have been found to be critical in TD and successful attainment of expertise.

Other studies out with football have also used to TDEQ to investigate the nature of TDEs. For example, Wang et al. (2011) investigated TD within Singapore, an Asian country which highly values and rewards the development of successful athletes. They found that the environment was related to life aspiration and goal pursuits of young Singaporean athletes. They suggested that a good support network and clear long-term athlete development focus supports mastery approach goals in athletes.

Using TDEQ to investigate TD environment in South Korea and Singapore. Wang et al. (2016) carried out a study on talent development environment and achievement goal adoption with specific aim of investigating whether perceived competence matter. Wang et al. (2016), found similar results to Wang et al (2011), but discovered that perceived competence was an important mediator. For example, those with lower perceived competence did not benefit as much from the environment as those with higher perceived competence.

Given the importance of talent development, the TDEQ has become a trusted tool applied by researchers investigating successful athlete development in sports. Indeed, in response to the psychometric challenges of the original TDEQ, Li et al. (2017) developed and used the TDEQ-5 to investigate the environment of talented athletes in China. They translated the TDEQ-5 into Chinese and examined its psychometric properties, its internal reliability, test-retest reliability and factorial as well as concurrent validity. Their results indicate that the TDEQ-5 shows adequate factorial validity, discriminant validity and internal reliability, so can be used with confidence in China. To carry out their study, Li et al. (2017) examined 538 talented males as well as female Chinese athletes from 28 different sports. The translation of the TDEQ-5 was done by two bilingual researchers

and then back-translated by another two bilingual researchers, after which two bilingual researchers familiar with TDEQ-5 assessed the translation. This ensured the accuracy and compatibility of the Chinese translation of the TDEQ-5 with the original one in English.

Very recently, Gangso et al. (2021) have examined the perception of the Norwegian junior-elite football players toward the TDEQ-5. Their findings are interestingly found to vary depending on the ranking of the clubs. That is, players from the top-ranked clubs are found to perceive TDE more associated with the holistic quality preparation, alignments of forecasts and communication. The players from the bottom-ranked clubs, on the other hand, are found to look over at the remaining elements of the TDEQ. In a more comprehensive study, Gesbert et al. (2021) reviewed the role of the environment in the TD. For the sample comprising the Swiss talented soccer players, the studies uncover variation in the perception toward the TDEQ depending on the age groups. The transient of the talented players to the professional level is also found to depend on context-specific requirements with these in turn depends on the critical periods across the age-groups. That is, the players are said to need some type to adopt the TDE before they start developing. They instead have been perceived as abundant and less rich and they become more professional as the time goes.

2.7 Conclusion

Much is known about the development of talent, with research spanning almost half a century. We have a reasonable understanding of the range of different factors that are relevant for effective TD. We understand the journey that athletes typically take from novice to elite, the role of individual characteristics, in particularly the role of psychology in both the identification and development of talent. There has a more recent focus of the

role of the environment, which has led to the development of the TDEQ to help researchers and practitioners understand and explore important features of effective development environments. However, very little, if not any of this research has been conducted within a Middle Eastern context. Jordan, for example, has seen improvements in the development of football on the world stage, although there have more recently been inconsistencies with the conversion of youth success and senior success. As such it seems pertinent to investigate talent development within a Jordanian context in order to understand the strengths, weaknesses and barriers that may exist in order to identify an evidence based plan for progression within the country. As such this thesis outlines four studies that quantitatively and qualitatively examines the nature of TID within Jordanian football in order to provide an evidence base on which guidance may be drawn for improving football development going forward in Jordan and ideally, within the Middle East. This is important because little work has been done in the emerging Arab countries where the cultural differences, the number of population and other considerations exist.

**Chapter 3- Developing and utilising the Jordanian Version of the Talent
Development Environment Questionnaire (TDEQ-5) for Sport in a football context
in Jordan**

3.1. Introduction

The Importance of the Talent Development Environment and Developing Related Measurements Tools.

In recent years, the sports sector has attracted the economic interests from private and public sectors across the globe, none more so than soccer. For instance, it was estimated that over \$14 billion was spent in hosting the FIFA 2018 World Cup in Russia. Also, by some estimates, the World Cup 2022 is going to cost Qatar approximately £138 billion (US\$220 billion). Therefore, a huge investment will be made especially in building and renovation of old stadium in preparation for the World Cup, making it one of the most important competitions in history⁵. Moreover, the Champions League generates over €3 billion each year. That's by far the most significant pool for a club-based sports competition. UEFA withholds over €500 million to cover for administration and other costs. This ever increasing investment and interest has facilitated increased training and performance standards over recent years, as well as raise the importance of the effective development of talent (Martindale et al. 2005; Johnston et al. 2018; Sarmiento et al. 2018; Bennett et al. 2019). This emphasis on understanding the effective development process is related to both financial gain, claiming that it can be a good investment in the long-run, as well as to maximising the quality of the talent pool. However, it is of course also a

⁵ More recently, Fatma Al Nuaimi, the Communications Director of the 2022 world cup, clearly announced that the budget for the building of stadiums and their related facilities amounted to \$6.5 bln making the 2022 world cup very costly compared to the 2018 world cup in Russia. For more details, see <https://tass.com/sport/1346719>.

process that requires long-term vision and resource, as it can take time and patience to develop talent effectively (Martindale et al. 2010).

According to Martindale et al. (2005), understanding the processes underpinning effective talent identification and development (TID) could help to increase the effectiveness and accountability of the governing bodies, clubs, and academies that specialize in the development of young people. While the literature in the field of talent development and the achievement of elite status in sport highlights that both the identification (nature), and development (nurture) of talent are both critical (albeit highly integrated) factors that determine the ultimate development and performance of the athlete (e.g., Li et al. 2015), researchers have focussed most recently on development. This is in recognition of the necessity for athletes to go through a long-term developmental track to develop vital attributes which lead to the emergence of their talent (e.g., Ericsson, 2007). Also, many TID related studies (e.g., Abbott & Collins, 2004; Bloom, 1985; Martindale et al. 2007; Sarmiento et al. 2018; Bennett et al. 2019) have shown that focus on talent has shifted from early identification to development because it has been proven time that resources spent on testing and searching for sports talent may not be particularly productive or efficacious, particularly at earlier ages and stages.

Research focussed on understanding talent development has previously examined the journey, stages and experiences that athletes gain and pass through to achieve elite status (Bloom, et al. 1985; Cote, et al. 2007; Durand, & Salmela, 2002). Also, others have examined the range of factors that can be influential over this sport journey, for instance Gagne (2004) found that there are four environmental catalysts for development, including the Milieu (e.g., physical, social, cultural, familial), Persons (e.g., parents,

teachers, peers, mentors), Provisions (e.g., programmes, activities, services) and Events (e.g. encounters, awards, accidents). However, early research paid very little attention on understanding the modus operandi and overarching aims of the TDE, which underpin the principles of effective practice (Martindale et al., 2005; 2007). In line with this Martindale and colleagues developed and refined key generic principles of effective practice (See Figure 1) through a range of research, including an evaluation of the current state of play in the literature (Martindale et al., 2005) and the perceptions of high quality talent development coaches (Martindale et al., 2007).

| Key features | Key methods |
|---|---|
| Long Term Aims and Methods | <ul style="list-style-type: none"> • Develop a Long Term Vision, Purpose and Identity |
| Wide Ranging Coherent Messages and Support | <ul style="list-style-type: none"> • Provide Coherent Philosophies, Aims and Methods at a Variety of Levels (e.g. Parents, Coach Content, Practice and Reward Systems, Selection, Funding, Competition Structure, NGBs) • Educate Parents, Schools, Peers, Coaches and Important Others (and encourage positive contributions!) • Utilise Role Models at a Variety of Levels • Set Up a Variety of Support Networks Over the Long Term (e.g. Peer, Coach, Sport Staff, Family) • Provide Forums for Open and Honest Communication Patterns, Formal and Informal Coach/Athlete Interactions at a Variety of Levels |
| Emphasise Appropriate Development NOT Early Success | <ul style="list-style-type: none"> • Re-Conceptualise 'Winning' as Success at Developmental Stages • Provide Clear Expectations, Roles, and Meaning Within the 'Big Picture' at Every Level • Provide 'Stage Specific' Integrated Experiences and Teaching With Explicit Links to Performance Fundamental Physical and Sport Specific Skills (Technical, Tactical, Mental, Physical, Perceptual) Fundamental Mental Skills (Learning and Development; Life; Performance Related) Balance • Encourage Increasing Responsibility and Autonomy in Learning/Development • Develop Intrinsic Motivation and Personal Commitment to Process • Promote Personal Relevance, Athlete Understanding and Knowledge |
| Individualised and Ongoing Development | <ul style="list-style-type: none"> • Provide Accessible Opportunities and Fundamentals to as Many Youngsters as Possible • Provide Flexible Systems to Allow for Performance and Physical Development Variation • Identify, Prepare for, and Support Individuals Through Key Transitions • Provide Individualised Programmes and Regular Individual Goal Setting and Review Processes |

Integrated, Holistic and Systematic

Figure 3.1 The Principles of Effective Talent Development Environments (Martindale et al., 2005; 2007; 2010)

While Martindale and colleagues have focussed on understanding generic features of effective practice, other researchers have since taken a more in depth, case study approach to examining effective talent development environments (e.g., Henriksen et al.,

2010; 2011). Henriksen's work has taken an holistic ecological perspective to understanding TDEs. This focussed on incorporating the macro and micro levels of the environment in both athletic and non-athletic domains, and also the organisational culture. Interestingly, while this work focussed on specific case studies, very similar generic principles of practice have emerged which are consistent with using the ATDE work and TDEQ work together (Gangso et. al 2021).

Building on the highly substantial evidence base for best practice delivery and generic principles of effective TDEs, Martindale et al (2010) developed a questionnaire known as Talent Development Environment Questionnaire (TDEQ) to measure the talent development experience. It was hoped that this would help to facilitate the use of research evidence in applied practice, by enabling coaches and environments to gain an understanding of their athletes' perceptions of their experiences, related to the key principles. In turn this would allow reflection on those principles and the feedback gained to design and monitor more evidence informed interventions (e.g., Hall et al., 2019).

The TDEQ is made up of seven factors with 59 items that measure the experience of an athlete in their specific environments, against the key principles of effective practice (Martindale et al. 2010). These factors include long-term development focus, quality preparation, and communication, understanding the athlete, support network, challenging and supportive environment, and long-term fundamentals. It is important to note that the main purpose of TDEQ is to measure the "holistic" and "generic" processes that are involved in the development of talented athletes in the long-term. Measuring these two elements are important for developing a cross-domain tool they may then leave an impact usefully within a wide range of applied sport contexts. However, it must also be

recognised that there are context specific factors that the TDEQ does not measure. Indeed, researchers have called for more context specific TDEQ developments (e.g., Gledhill et al., 2017; Thomas et al., 2020). While there have not yet been any contexts specific developments to the TDEQ, since its development, different researchers have sought to refine the TDEQ and check its applicability across different contexts. For example, due to methodological concerns Wang et al. (2011) used the TDEQ as a 6 factor, 36 item questionnaire. Further statistical refinement of this 6 factor TDEQ by Li et al., (2015) led to a shortened, psychometrically sound TDEQ-5, with 5 factors and 25 items. Other studies have investigated the applicability of the TDEQ and TDEQ-5 across different geographic, cultural and sport contexts (e.g., Brazo-Sayavera et al., 2017; Ivarsson et al. 2015; Li et al., 2017; Siekańska et al., 2017; Thomas et al., 2020; Gesbert et. al., 2021).

The application of the TDEQ and the need for TDEQ translation

The TDEQ has been used for a number of purposes since its development. A number of researchers have used it to understand the impact of the environment on important athletes' outcomes. For example, Martindale et al. (2013) highlighted that the TDEQ can be used as a tool to differentiate between higher and lower quality TDEs with 77.8% accuracy, identifying 'quality preparation' and 'understanding the athlete' as significant discriminators within UK based rugby union and swimming TDEs. In a Swedish context, Ivarsson and colleagues found that the quality of the TDE predicted wellbeing and stress in academy football players (Ivarsson et al., 2015). Other studies have employed the TDEQ in different Asian contexts, for example, Wang et al (2011) examined the impact of the TDE on the life aspirations and goal pursuits of young Singaporean athletes. They

found that intrinsic goal striving was predicted by an environment with clear long term focus and fundamentals in place, with a strong support network. Other work in Singaporean and Korean TDEs identified the important role of perceived competence as a mediator of the impact of the TDE (Wang et al., 2016). Specifically, while this work generally supported the positive relationship between long term focus and different motivational outcomes, for those athletes with lower perceived competence, long term focus was also related to increased mastery avoidance goals. Other work in Chinese contexts have investigated the role of the TDE in mental toughness development (Li et al., 2019) and burnout (Li et al., 2017).

Another avenue that researchers have utilised the TDEQ and TDEQ-5 is in evaluating the strengths and weaknesses of TDEs in order to inform interventions in applied contexts. For example, Mills et al. (2014) and Gledhill & Harwood (2019) examined the perception of UK based football players (male and female respectively) on the quality of their development environment at a critical stage in their progression toward the professional level. These studies led to clear evidence based recommendations about the strengths and weaknesses of those environments from a player perspective. A similar focus of work has also been carried out in countries with less well developed sport development systems. Specifically, Thomas et al., (2020) studied the perceptions of 400 Caribbean track and field athletes from six English speaking countries, confirming both the applicability of the TDEQ-5 for use in this type of context and highlighting key evidence based strengths and weaknesses. The use of the TDEQ in this applied way has also been extended by Hall et al., (2019), who not only used the tool to identify strengths and weaknesses within their Elite rugby context in Hong Kong, but also showed how the tool could be successfully

used to facilitate the design of an evidence based intervention and monitor impact across a 12 month period.

Recently, in Norway, a study by Gangso et. al. (2021) was to examine junior-elite football players' perception of their talent development environment through comparing clubs ranked as the top-five and bottom-five in the 2017 Norwegian academy classification. Ninety two male junior-elite football players recruited from under-19 teams of five professional football club academies took part in the study. The TDEQ-5 was used to measure the players' perceptions of their team environment.

Also, in French, Gesbert et. al. (2021) examined the perceptions of talented Swiss soccer players about their talent development environment. The first study presented the translation and validation of the TDEQ into French using a recommended methodology for translating and culturally adapting questionnaires. Two hundred and three Swiss athletes responded to the 25 items of the TDEQ-5.

However, one item was excluded due to low factor loadings, and the descriptive statistics showed that the re-specified TDEQ-5 instrument had acceptable global model fit according to the thresholds in the literature (χ^2 (df = 17) = 484.62, $p < 0.001$, CFI = 0.91, TLI = 0.90, RMSEA = 0.07, SRMR = 0.06). This adaptation is thus valid for assessing the effectiveness of talent development processes. For the second study, a holistic design was used to examine the perceptions of a set of players embedded in a top-level Swiss soccer academy (i.e., 64 elite soccer players from 14 to 18 years old) by using the TDEQ-5. The results showed some relative strengths and weaknesses, they also highlighted that

the talent pathways of these Swiss soccer players could not be summarized by a single type of transition toward a professional team

Given the emerging evidence of the importance and usefulness of these two avenues for the TDEQ and TDEQ-5, it is perhaps unsurprising that a number of researchers have focussed on translating the TDEQ so it can be used in non-English speaking contexts. More specifically, the questionnaire has been translated and refined into different languages such as Swedish, Korean, Chinese, Spanish, Portuguese, Iranian, Polish French and Norwegian (Brazo-Sayavera et al., 2017; Costa et al 2017; Ivarsson et al., 2015; Lee et al., 2012; Li et al., 2018; Tizro & Badami, 2018; Siekanska & Wojtowicz, 2017; Gesbert et. Al., 2021; Gangso et. Al., 2021). The results of these studies show that the TDEQ and the TDEQ-5 can be successfully translated into another language, with clear evidence for its reliability and validity.

However, to date there has been no translation of the TDEQ or TDEQ-5 into Arabic, so research can be carried out within Arabic speaking contexts. As such the aim of this research is to translate and validate an Arabic TDEQ-5. Importantly, this is a region where, to the best of my knowledge, there is no research on the talent development environment in any aspect of sports. Jordan is an emerging nation and one of twenty-two countries that speak Arabic. Jordan was selected as my focus as it is small country with growing number of sport clubs and academies but anecdotally has a lack of effective talent development programs. Second, after translating the TDEQ into Chinese, Spanish, Polish and Arabic languages with the original English version, more than 70% of athletes and coaches across the world will be able to make use of the questionnaire.



Figure 3.2 Visual representation of the countries that have translated and validated the TDEQ and the range of countries that would be able to use an Arabic TDEQ-3.

Third, other Arabic speaking countries out with Jordan may more easily adopt it due to their similarity in culture, tradition and religion. Fourth, doing the analysis in the Arab region will allow the researchers to conduct an international studies and cross-cultural comparisons. Finally, this study focuses on one of the most common sports in the world namely football and Jordan is not an exception. Such results from this study will be comparable with the others conducted in the emerging countries.

3.2. Methods

3.2.1. Translation, cultural and language adaptation process

The current study adopted a recommended methodology for the translation and adaptation of the TDEQ into Arabic (Conrad et al., 1999; Forsyth et al., 1991). This suggests a three step approach to translate the questionnaire, (i) forward translation, (ii) backward translation and (iii) cognitive interviews.

Step 1: Forward translation

This step included the researcher and two native Arabic translators⁶. The TDEQ-5 questionnaire was translated by the researcher and the two Arabic translators. As a result, three translation versions of the original items, instructions and response options were produced. Then, the translators investigated the three translations to produce a single combination that is as conceptually and semantically similar to the original one as possible. This process allowed for changes in the original version because, for example, some terms that have a particular meaning in English have different or secondary meanings in Arabic, which may give rise to semantic ambiguity. In this case, we made changes for such words to be more clearly understood.

Step 2: Backward translation

This step included five native English speakers who were fluent in Arabic and have a good knowledge on the area of research who have either a Masters or PhD in different fields in sport such as psychology, physiology and philosophy. In this step, they translated the agreed Arabic version of the TDEQ into English and compared it to the original English version of the TDEQ. The backward translation permits the identification of misunderstandings or inaccuracies in the previous step. But it was translated very carefully and there was nothing deemed incomprehensible.

Step 3: Cognitive interviews

⁶The two native Arabic translators are specialists in the field of sports psychology, talent identification and development with knowledge of the area of research.

The final step included a group of respondents specifically 20 males and females with the ages ranging from 15 to 20. The purpose of this step was to present the Arabic questionnaire version to players in order to identify if the questionnaire was acceptable in terms of items, instructions and responses options. Moreover, this was done to determine if it was straightforward, easy to understand, and a general assessment of the instrument's clarity. Both "probing" and "paraphrasing" methodologies were used to present respondents feedback on misunderstandings or inaccuracies in the translation process. Varni et al. (2001) argued that the final step is applied in order to reduce measurement error which occurred during the translation process, and so enable respondent errors to be corrected.

The interviews were carried out with a set of experts in sport psychology, talent identification and development including 12 males aged from 32 to 40 years working in prince Ali sport academies and Ma'an football club. Those experts were native Arabic / English speakers. In addition, a group of 20 PhD research students (12 males and 8 females) aged from 32 to 38 were interested in this field participated in this stage. Those students are now performing their PhD studies at Yarmouk University and the University of Jordan⁷. The questionnaire was then administered to 20 participants aged 12 to 18 years old. The interviews consisted of three elements. First, an evaluation of the simplicity of understanding of each item by ticking one of two options: a) understandable or b) complicated. Second, the two options "understandable" and "complicated" were assessed using a numerical rating scale (0 to 10), where 0 means "Easy to understand" and 10 means "Hard to understand". Finally, an examination of individual explanations

⁷ These two universities are public and not private universities and have top sport schools in Jordan. The faculties deans in these universities also gave us the verbal permissions to contact their students.

of questionnaire items was carried out by asking the interviewers to interpret the answers using their own words and then rephrase each item to confirm that they understood it correctly. All observations were examined and all questions were sorted to coordinate the nature of the questions and the ages of the players, thus creating a high-quality questionnaire.

3.3 Procedure

Ethical approval was granted by the Ethics Committee of Edinburgh Napier University (Ref: PG05). The researcher contacted the Jordanian Football Association for the ease of getting access to the players directly through their coaches. After permission was granted, the questionnaire was sent via e-mail from the researcher to coaches across a variety of clubs. The researcher gave instructions to the coaches to administer the questionnaire in a consistent manner to the athletes and to facilitate the understanding of the questions being asked. Information regarding the potential risks of being involved in the study and the potential benefits from this study were given to the participants. They were asked to answer honestly and that there were no right or wrong answers. The participants were informed that participating in the research was optional and participants can withdraw freely and without consequence at any time without giving any explanations. In addition, the written consent of the parents of minors was obtained, and the clubs have a written consent of all the players to participate in any activity while they are in training or in any other place in the club.

3.4 Measures

The TDEQ-5 was utilised in this research. The original TDEQ-5 includes 28 items across a 5-factor structure (Li, et al. 2015). The factors include Long-term Development (LTF -

6 items), Holistic Quality Preparation (HQP - 7 items), Support Network (SN - 6 items), Communication (COM - 4 items), and Alignment of Expectations (AOE - 5 items). Moreover, the questionnaire is measured on a 6-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree). There are seven negatively worded items in the TDEQ-5; these scores are reversed before data analysis. Adequate validity and reliability has been reported in previous research (e.g. Li et al., 2015).

Data analysis: Confirmatory factor analysis

Given the range of research that has previously confirmed the factor structure of the TDEQ-5 in both English and other languages, and in line with previous research that has translated the TDEQ or TDEQ-5 into a different language, confirmatory factor analysis (CFA) was carried out. The AMOS statistical program was used to carry out the CFA. Before doing the CFA analysis, missing data was analysed through Little's MCAR test and revealed values were missing at random. Missing values were then imputed using the Expectation-maximisation algorithm (Little, 1988). This is considered acceptable where the proportion of missing values is below 5%. Hair et al., (2010) highlight that a sample size of greater than 200, with a participant to item ratio of 10 to one or more is acceptable for CFA.

As a standard procedure to analyse the CFA results, the goodness of fit of the model was tested using Hu and Bentler's (1999) framework. These guidelines assume that the Comparative Fit Index (CFI) score is adequate if it is equal to or more than 0.90. Moreover, threshold limits for the Standardized Root Mean Square (SRMR) value is considered good if it is 0.08 or below, while the Root Mean Square Error of

Approximation (RMSEA) has to be 0.08 or less in order to judge on the goodness of the results.

3.5 Results: Confirmatory factor analysis

Figure 3 depicts the whole process in the CFA analysis with the questions being linked to the TDEQ five factors. The figure represents the link between the factors as well as the associated error terms with the questions in the questionnaire. Table 1 presents the goodness-of-fit statistics for TDEQ-5 for the responses of full sample. The initial analysis reveals a CFI score less than the required 0.9. Neither the SRMR value nor the RMSEA value were below the required 0.08 score. As such the TDEQ-5 model did not show good fit.

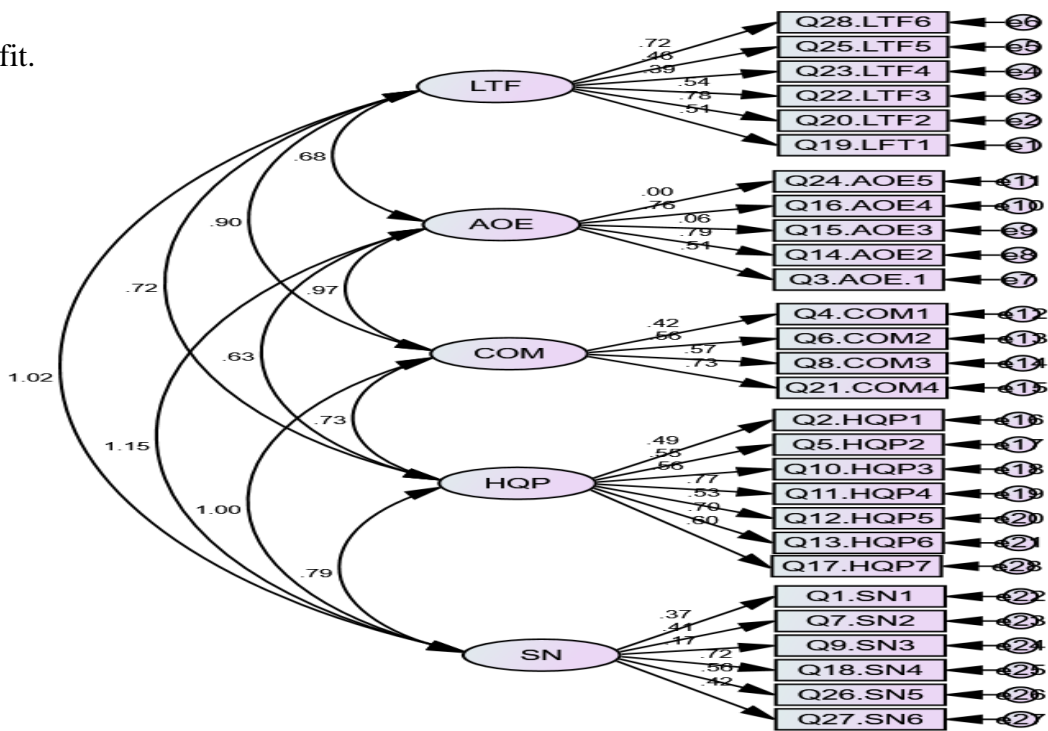


Figure 3.3 Visual representation for the initial CFA analysis with 28 questions.

Due to the poor fit of the original model (28 questions) an additional CFA was carried out to evaluate a re-structured TDEQ-5. More specifically, the results show that two items should be dropped out from the analysis as their factor loadings were extremely low

below 0.323. The obtained CFI values from the modified TDEQ still did not meet the minimum standards for adequate model fit.

Table 3.1 Goodness-of-fit statistics for TDEQ-5 with the responses of overall samples N=564

| Model | Df | χ^2 | p | RMSEA | CFI | SRMR | AIC | BIC | ECVI |
|--|-----------|----------------------------|----------|--------------|------------|-------------|------------|------------|-------------|
| <i>TDEQ-5 CFA</i> 5 Factor TDEQ-5 (28-item) | 339 | 2338. 30 | 0.000 | 0.102 | 0.754 | 0.148 | 2472.30 | 2762.74 | 4.391 |
| <i>TDEQ-5 CFA</i> 5 Factor TDEQ-5 (26-item) | 265 | 2042. 91 | 0.000 | 0.109 | 0.763 | 0.147 | 2162.91 | 2423.01 | 3.841 |

Specifically the CFI was marginally improved but still significantly below 0.9 required and the RMSEA and SRMR were still above the threshold of 0.08 or below. In conclusion, the 5 factor structure offered by previous research was not deemed to be appropriate in this population and context, and as such the need for an alternative method of analysis was required, namely an exploratory factor analysis (Henceforth, EFA).

3.6 Exploratory factor analysis

3.6.1 Sample size

It was argued in the sport development literature that a sample comprising 300 cases or more to better intemperate the responses of participants (Comrey & Lee, 1992, Tabachnick & Fidell, 2001). That sample size is in turn found to produce a reasonable ratio of at least 4:1 (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Similar argument is made in further studies (e.g., Martindale et al., 2010). The current study employs a batch of preliminary tests to ensure on the suitability of data hand before estimating the

EFA. These are namely, Kaiser-Meyer-Olkin (Hereafter, KMO) and Bartlett's test of sphericity to examine the sampling adequacy and the adequate level of correlation between items in the questionnaire. Another basic test is also conducted to make sure that multicollinearity problem does not exist. In other words, the data is made free of too much correlation. After doing so, the analysis relied on Stevens (1992) to consider a level of loading of 0.320 as a cut-off point to drop the cross loading items.

3.6.2 Participants

The study sample comprises 564 surveys distributed to Jordanian youth football players that consisted of 319 males and 245 females aged between 12 and 18, (mean: 14.38 and Std. Deviation: 2.15). Within the male population 163 participants were member of academies and 156 were members of football clubs. All the players had trained in the sport of football for between 1 and 5 years. All participants were considered to be 'talented' or aspiring to elite level and selected onto a recognized 'pathway trajectory' from which elite status can be reached. Furthermore, the selection of the participants is made in line with the characteristics of athlete and "excellence" environment under which questionnaire is developed. Lastly, clubs and academies were recommended by regional sport confederations.

3.6.3 Data analysis

The factor structure of the Arabic TDEQ-5 was analysed using SPSS version 26. Principal axis factoring extraction with an oblique with direct oblique rotation was used to identify the factor structure which comprises the least number of factors that account for the common variation of a group of variables. Using an emerging factor structure allows for providing insight into the basic factors and allows for a better interpretation for

the important items within the questionnaire. Specifically, the selected type of rotation is argued to be theoretically more accurate in some cases (Costello & Osborne, 2005). It also gives a better insight regarding the potential inter-relationships.

However, since there is no consensus on the most appropriate oblique rotation, the data in the study can be used to examine to what extent the employed factors in the survey are allowed be correlated (Fabrigar, et al., 1999). Empirically, several criteria are employed to determine the optimal number factors to be retained. These are specifically, include the screen test of Cattell (1966), the decision for a clean structure against complex one (Costello & Osborne, 2005), the size of the Kaiser-Guttman eigenvalue (Cattell, 1966) with a minimum value of minimum required over 1.0; and the description of the groups within the study in a way similar to that made in Harman (1976). Finally, any item loading at less than 0.320 was removed as this supported the development of the cleanest factor structure (e.g., Martindale et al., 2010). Moreover, the discriminant validity of the questionnaire was examined through a multivariate analysis of variance, subsequent univariate statistics and a discriminant function analysis, a process advised to fully understand the data (Field, 2006).

3.7 Results

Bartlett's test of sphericity was found to be significant (Chi-Square= 8371.788, d.f.= 378, $P < 0.001$), meaning that there was satisfactory correlation between the variables of the study and therefore that EFA was good enough to proceed with. The KMO proxy of sampling examination uncovered significant outcomes (0.885, $P < 0.001$), indicating that the sample size was adequate for the EFA (Sharma, 1996).

Significant attention was given to the scree plot in the search for the cleanest factor structure, due to the difficulty in pinpointing the inflexion in the curve. Based on that, the cleanest factor was evaluated through three main criteria as follows: First, item loadings more than 0.320; Second, no or fewest cross-loading. Lastly, as indicated by Costello & Osborne (2005) no factors with less than 3 items must be considered.

This identified three-factor structure with eigenvalues ranging from 32.026 to 0.583, accounting for 64.322% of the total explained variance. Table 2 shows that factor loadings ranged from 0.320 to 0.807 across the three factors. Two items were dropped for statistical reasons due to low loading. There are Q18 SN4 ‘My coaches talk regularly to the other people who support me in my sport about what I am trying to achieve (e.g. physiotherapist, sport psychologist, nutritionist, strength & conditioning coach, life style advisor etc’ and Q28 LTF6 ‘My coach emphasises the need for constant work on fundamental and basic skills’.

In relation to the internal consistency estimates, the Cronbach alpha scores for TDEQ-3 factors were as follows: Factor 1 – .889; Factor 2 – .862; and Factor 3 - .829. All these scores represent very good reliability (Tabachnick & Fidell, 2001)

Table 3.2 Factor loadings from the explanatory factor analysis

| Item # | Factor 1 | Factor 2 | Factor 3 |
|--------|----------|----------|----------|
| Q22 | .807 | | |
| Q26 | .739 | | |
| Q25 | .691 | | |
| Q23 | .631 | | |
| Q20 | .622 | | |
| Q19 | .612 | | |

| | | | |
|-----|------|-------|-------|
| Q27 | .602 | | |
| Q21 | .597 | | |
| Q4 | .478 | | |
| Q15 | .431 | | |
| Q24 | .376 | | |
| Q9 | .320 | | |
| Q12 | | 0.758 | |
| Q10 | | 0.746 | |
| Q13 | | 0.732 | |
| Q11 | | 0.720 | |
| Q5 | | 0.652 | |
| Q17 | | 0.597 | |
| Q2 | | 0.568 | |
| Q14 | | | 0.730 |
| Q6 | | | 0.723 |
| Q8 | | | 0.723 |
| Q16 | | | 0.628 |
| Q7 | | | 0.567 |
| Q3 | | | 0.468 |
| Q1 | | | 0.330 |

3.7.1. Ecological Validity of the Arabic TDEQ

It is generally accepted that the academy environments are considered better quality environments than club environments for producing elite level performers. In line with this, analysis was carried out to determine the ability of the Arabic TDEQ to distinguish between these environments. First, multivariate analysis of variance showed that there was significant difference between the academy and club environments ($F(315, 3) = 7.702$; $p < 0.01$). Significant differences were revealed across all three factors with academy environments consistently scoring higher than club environments (see Table 3.2).

Mean scores, standard deviations, associated effect sizes, canonical correlation coefficients and significance values for individual Arabic TDEQ factors between the 'higher quality' academy environments and 'lower quality' club environments are presented in Table (3.3). Canonical correlation coefficients are similar to factor loadings and indicate contribution to group separation (Bargman, 1970). In line with this the factors 1 and 3 appeared most useful for distinguishing between the groups, with factor 2 considered less relevant in that regard.

Table 3.3 Means and standard deviations for 'Higher Quality' and 'Lower Quality' environments with resulting effect size, significance values and canonical variate correlation coefficients for each individual factor.

| Factor | 'Higher Quality' Academy Environment (n=163) | 'Lower Quality' Club Environment (n=156) | Coefficients | Effect Size | Significance |
|-----------------|---|---|--------------|-------------|--------------|
| Factor 1 | 5.08 (.66) | 4.76 (.61) | .583 | .057 | P<0.01 |
| Factor 3 | 4.97 (.81) | 4.57 (.99) | .411 | .048 | P<0.01 |
| Factor 2 | 4.28 (1.17) | 3.90 (.84) | .187 | .035 | P<0.01 |

The discriminant function analysis results revealed a significant result (Wilks's Lambda, 0.932, X² (3) 22.33, P<0.01) with a canonical correlation of .261. The three Arabic TDEQ factors were able to correctly predict 60.8% of the players into the correct type of environment.

3.8 Discussion

Translating the TDEQ-5 into different languages including Arabic remains a highly important step for facilitating research interest and development with respect to talent development across the world, including in Arab speaking countries. Therefore, the aim of this study was to translate and validate the Talent Development Environment Questionnaire (TDEQ-5) into Arabic.

At the early stage of the work, the original questionnaire was translated, distributed and collected back from the participants employing standardised procedures for translating surveys into other languages (for example, Brislin, 1980). Each questionnaire comprised of the 28 questions that were associated with the original five factors of the TDEQ-5. The analysis began with examining the five factor TDEQ-5 through confirmatory factor analysis. Due to the inadequate fit, further analysis using explanatory factor analysis was required. This led to the emergence of a 26 item, 3 factor solution.

Exploratory factor analysis is used to help identify the best fit for latent factors within a set of items. However, this grouping does not identify the associated meaning of those latent factors. Hawthorne, Richardson and Osbourne (1999) highlight that accepted practice in developing meaning of latent factors is to first consider those items which load most heavily on the factor. Where this meaning is consistent with the conceptual structure, evidence can be assumed of a valid interpretation. This can be supported further by clear evidence within the literature for the meaning gleaned. Based on this premise, the three factors are presented and interpreted in the next phase of the discussion.

Factor 1: Individualised Long Term Development Focus

Twelve items related to the extent to which athletes were afforded individualized opportunities which focused on their preparation in the long term (e.g. learning from own mistakes, the importance of performance during training, learning from the experiences of past performers, the ability of the coaches of understanding athlete's needs). Five of the 6 items in the original TDEQ-5 factor 'Long term development focus' were included in this new factor and have high standing with regards to factor loadings by occupying 5 of the 6 top factor loading items. The one item that is not included from the previous TDEQ-5 is "My coach emphasises the need for constant work on fundamental and basic skills" which was dropped completely from the analysis due to low factor loading. However, Item 4 was included out with the original TDEQ-5 LTF factor "My coach and I talk about what current and/or past world class performers did to be successful", which also has a very clear focus on the long term.

Other items that loaded onto this factor led to the inclusion of the idea of emphasizing the 'individualised focus'. In particular, Item 26 "My training programmes are developed specifically to my needs" was the second highest factor loading item. Other items in this factor also included items meaningful for attending to individual needs, specifically, Item 27 "My coaches ensure that my school/uni/college understand about me and my training/competitions"; Item 21 "My coach explains how my training and competition programmed work together to help me develop"; Item 15 "I am involved in most decisions about my sport development"; Item 24 "My progress and personal performance is reviewed regularly on an individual basis; and Item 9 "Currently, I have access to a variety of different types of professionals to help my sports development".

As with previous versions of the TDEQ, the importance of this type of factor is evidenced in many of the studies in the literature, highlighting the need for a long term view of talent development process, and individualized considerations (Cote, MacDonald, Baker, & Abernethy, 2006 and Martindale et al., 2010).

Factor 2: Holistic Quality Preparation

The seven items that are linked to this factor are exactly the same items that load onto the original TDEQ-5 questionnaire. The definition used for this factor in Li et al., 2015 paper is “The extent to which intervention programmes are prepared both inside and outside of sports settings (e.g., coach focussed on wellbeing, clear guidance & transition planning, mental preparation, and balanced life/sport preparation)” (p.1839). Again, there is much recent research which highlights this factor as extremely important in effective talent development environments (See Seanoret al., 2019; Martindale et al., 2010).

Factor 3: Goal Setting & Coherent Support

This factor comprises seven items related to the finding the best path and support for the athletes toward reaching their goals. These include, for example, setting goals on regular basis with the coaches, determining the specific requirements for sport development such as training ethos, competition performances. In addition, items in this factor also concern about the importance of matching between the advice from parents and the that from coaches. That, in turn, aims at ensuring the coherence in support to athletes in order to ensure their progress in the ground. The need for such a kind of support is highlighted in several studies (see, for example Durand-Bush & Salmela, 2002 among others).

More specifically, this factor includes a combination of items from three of the factors in the original TDEQ-5 – Alignment of expectations; Communication; and Support

Network. The three highest loading factors include Item 14 “I regularly set goals with my coach that are specific to my individual development; Item 6 “My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically)” and Item 8 “My coach and I often try to identify what my next big test will be before it happens”. All these items relate to goal setting. The final four items clearly relate to coherent support process, for example Item 16 “My coaches make time to talk to my parents about me and what I am trying to achieve”; Item 7 “Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc”); Item 3 “The advice my parents give me fits well with the advice I get from my coaches”; and Item 1 “I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc)”. As such, it seemed logical to include both goal setting and coherent support within the factor title.

As well as adequate structural validity outlined above, internal reliability of the scale was found to be very good within the three factors of the TDEQ models, where the Cronbach α was more than 0.80 in all three factors. Our internal consistency results then ensured the reliability within the scale. Hence, internal reliability of the Arabic version of the TDEQ-5 was adequate and was almost equivalent to the English version. More specifically, the scale’s Cronbach α is found to be equivalent to the other studies being conducted in Asia with both English and Chinese versions. Examples of these studies

include Li et al. (2017), with Cronbach α = 0.66-0.89 and Li et al. (2015) who gained a Cronbach α between 0.79 and 0.86.

The reason behind the new shift in the results may well be attributable to the differences in culture, religion, language and lifestyles between the developing and developed countries or indeed, Arabic speaking countries and other languages. It is also important to consider the fact that two items were dropped through the final analysis stage. With regards to any potential loss of ecological validity due to dropping two items it is important to consider Q28 and Q27 in relation to other items. Specifically, items 1 and 9 are similar to Q28 as well as items 14, 19 and 23 being similar to Q27. So the TDEQ-3 does not lose much in terms of content, but gains in terms of psychometric strength due to the loss of Q28 and Q23. Indeed, this was similar to the original TDEQ-5 analysis (Li et al., 2015) where the original 28 items were reduced to 25 due to low factor loading. To add more context, the original 28 items were reduced to 26, also for statistical reasons. Interesting item 28 “My coach emphasises the need for constant work on fundamental and basic skills” was dropped in both analyses. The other items similar to this relate to working on skill development that is needed later (i.e., basics and fundamentals), and also a focus on developing what an individual most needs (which is likely to include fundamental skills). The other item dropped in this work was Item 18 “My coaches talk regularly to the other people who support me in my sport about what I am trying to achieve (e.g. physiotherapist, sport psychologist, nutritionist, strength & conditioning coach, life style advisor etc”, which while such ongoing communication is an important concept, other items covered similar issues around coherent support and communication between different parties, meaning this element wasn’t entirely missing due to the loss of

Item 18. For example Item 7 “Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc”); Item 3 “The advice my parents give me fits well with the advice I get from my coaches” and Item 16 “My coaches make time to talk to my parents about me and what I am trying to achieve”. In summary, the minimal conceptual loss may be worth the trade-off due to the ensuing increased psychometric strength of the scale.

In relation to the discriminant validity analysis, it is interesting to note that while all three factors, that is Factor 1: Individualised Long Term Development Focus; Factor 2: Holistic Quality Preparation; and Factor 3: Goal Setting & Coherent Support were all significant contributors to the prediction of higher or lower quality environments, it was 1) Individualised Long Term Development Focus and 2) Goal Setting and Coherent Support that were the most significant discriminators. This is interesting because in a UK context, Martindale et al. (2012) also found that factors relating to quality practice (which would include effective goal setting and appropriate development focus) and understanding the athlete (which presumably would include taking an individualized approach) were the most significant discriminators between different qualities of environments. Although, it is important to recognize that the factor “understanding the athlete” in the original 7 factor TDEQ is most related to the current factor titled “holistic quality preparation”, which was not one of the significant predictors in this work. As such, perhaps it makes sense that more fundamental processes around goal setting and appropriate support for development would more influential or important in less developed countries, such as Jordan. Whereas many of these more fundamental processes

may well already be in place in developed countries, particularly in the academy and talent pathway systems investigated in the Martindale et al., 2012 study. As such, the most effective environments in more developed places are likely to separate themselves from the rest through a strong focus on more psychological elements of support and development, which is often typically one of the most difficult and last factors to resource and operationalize (e.g., Martindale & Mortimer, 2011).

In conclusion, Jordan as a developing country is expected to benefit from the potential understandings that can be extracted after assessing their development context which can result later on at the larger and logical application of practices by coaches and their administrators within the Arab region. Some studies in the literature indicated for the need for understanding the main differences across cultures within the talent identification framework (see, for example Stambulova et al., 2009). Hence, the Jordanian context and generally the Arab region are not exceptions. Finding interesting results from the analysis in Jordan are expected to provide good insights from the TDE in an emerging market context with completely different environment than that of the developed countries. It is widely known that the TDEQ scale is a measurable evidence-based method to deeply observe the development environment and its influence on the emerging athlete, however until now its validity and applicability was unknown within the Jordanian context. This study enables researchers and practitioners within Arab speaking countries to research and evaluate the strengths and weaknesses of their talent development environments with confidence, through the valid and reliable Arabic 26 item TDEQ-3.

Table 3.4 Talent Development Environment Questionnaire with 3 factors (TDEQ-3)

Arabic and English

| No | Items | Code |
|----|---|-------------|
| 1. | I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc)..... يمكنني الذهاب لمقابلة مدربي أو أي من الطاقم الرياضي في أي وقت أريد | GSCS1 |
| 2. | I am rarely encouraged to plan for how I would deal with things that might go wrong.... نادرا ما أتلقى الدعم للتخطيط لكيفية التعامل مع الأشياء التي قد تنتهي بشكل خاطئ | HQP1 (R) |
| 3. | The advice my parents give me fits well with the advice I get from my coaches النصيحة التي تلقيتها من والدي توافقت تماما مع النصيحة التي اتلقاها من المدربين | GSCS2 |
| 4. | My coach and I talk about what current and/or past world class performers did to be successful أنا ومدربي نتحدث عن أي من الرياضيين العالميين الحاليين أو السابقين كانوا ناجحين | ILTDF1 |
| 5. | My coach doesn't appear to be that interested in my life outside of sport مدربي لا يبدو مهتم بحياتي خارج نطاق الرياضة | HQP2 (R) |
| 6. | My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically) أنا ومدربي نتحدث بشكل دوري عن الأشياء التي أحتاجها حتى أصل الى مستوى عالي في رياضه التي أمارسها | GSCS3 |
| 7. | Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers,(nutritionists, lifestyle advisors etc اولئك الذين يساعدونني في فريقي يبدو عليهم أنهم في نفس مستوى الدافعيه عندما يتعلق الأمر بما يناسبني بشكل أكبر | GSCS4 |
| 8. | My coach and I often try to identify what my next big test will be before it happens..... أنا ومدربي نحاول دائما تحديد ماذا سيكون الامتحان القادم قبل حدوثه | GSCS5 |

| | | |
|-----|---|-------------|
| 9. | Currently, I have access to a variety of different types of professionals to help my sports development (e.g. physiotherapist, sport psychologist, strength trainer, nutritionist, lifestyle advisor etc) | ILTDF2 |
| | لدي حاليا امكانية للتعامل مع العديد من الخبراء بما يساعدني على تطوير أدائي الرياضي | |
| 10. | The guidelines in my sport regarding what I need to do to progress are not very clear.... | HQP3 (R) |
| | التعليمات المطلوبة فيما يتعلق بتطوير رياضتي الخاصه غير واضحة | |
| 11. | I don't get much help to develop my mental toughness in sport effectively..... | HQP4 (R) |
| | لا أحصل على الكثير من الدعم لاكتساب مهارات الفكر الرياضي بشكل فعال | |
| 12. | My coach rarely takes the time to talk to other coaches who work with me..... | HQP5 (R) |
| | مدربي من النادر ما يأخذ الوقت للحديث الى مدربين اخرين يعملون معي | |
| 13. | My coach rarely talks to me about my well-being..... | HQP6 (R) |
| | من النادر ما يتحدث مدربي معي عن مدى سعادتني | |
| 14. | I regularly set goals with my coach that are specific to my individual development..... | GSCS6 |
| | أنا أضع أهدافا بشكل منتظم مع مدربي بحيث تكون تلك الأهداف مرتبطة بتطوير أدائي | |
| 15. | I am involved in most decisions about my sport development..... | ILTDF3 |
| | أنا منخرط في معظم القرارات المتعلقة حول تطوير أدائي الرياضي | |
| 16. | My coaches make time to talk to my parents about me and what I am trying to achieve... | GSCS7 |
| | مدربي يخصص بعض الوقت للتحدث مع والدي فيما يخصني وما أحاول أن أحققه | |
| 17. | I am not taught that much about how to balance training, competing and recovery..... | HQP7 (R) |
| | لم أتلقى التوجيه فيما يخص كيف يمكن الموازنه بين التدريب، المنافسه واسترداد العافيه بعد المنافسه | |
| 18. | My training is specifically designed to help me develop effectively in the long term..... | ILTDF4 |
| | برنامجي التدريبي مصمم بشكل رئيسي لمساعدتي على بالتطور بشكل فعال على المدى البعيد | |
| 19. | I spend most of my time developing skills and attributes that my coach tells me I will need if I am to compete successfully at the top/professional level..... | ILTDF5 |

| | | |
|-----|---|------------------------------|
| | أقضي معظم وقتي على تطوير مهاراتي والصفات التي يخبرني بها مدربي بأني سوف أحتاج إليها إذا أردت المنافسة بشكل ناجح على مستوى عالي من الأداء | |
| 20. | My coach explains how my training and competition programme work together to help me develop..... مدربي يفسر لي كيف لبرنامج التدريب والمنافسة الخاصه بي يمكن أن تعمل معا بشكل معين يساعدي على التطور | ILTDF6 |
| 21. | My coach allows me to learn through making my own mistakes..... مدربي يسمح لي بالتعلم من خلال أخطائي في الممارسه | ILTDF7 |
| | I would be given good opportunities even if I experienced a dip in performance..... كان بالإمكان منحي فرصه أفضل في حالة ملاحظة هبوط في مستوى أدائي | ILTDF8 |
| 22. | My progress and personal performance is reviewed regularly on an individual basis..... يتم مراقبة تقدمي وأدائي الشخصي بانتظام على مستوى فردي | ILTDF9 |
| 23. | My coach emphasises that what I do in training and competition is far more important than winning يشدد مدربي على أنه ما أقوم به خلال الحصص التدريبية والمنافسه هو أهم بكثير من الفوز | ILTDF10 |
| 24. | My training programmes are developed specifically to my needs..... برامجي التدريبية تم تطويرها بشكل محدد لتناسب احتياجاتي | ILTDF11 |
| 25. | My coaches ensure that my school/uni/college understand about me and my training/competitions المدرسين حريصين دائما على التأكد بأن مدرستي/جامعتي/كليتي يفهمون وضعي ووضع تدريبي/المنافسه التي أشارك بها | ILTDF12 |
| 26. | Q28.LTF6 My coach emphasises the need for constant work on fundamental and basic skills يشدد مدربي على الحاجة إلى العمل المستمر على المهارات الرئيسية والأساسية | withdrawn due to low loading |
| 27. | Q18.SN4 My coaches talk regularly to the other people who support me in my sport about what I am trying to achieve (e.g. physiotherapist, sport psychologist, nutritionist, strength & conditioning coach, life style advisor etc يتحدث مدربي بانتظام إلى الأشخاص الآخرين الذين يدعمونني في رياضي حول ما أحاول تحقيقه (مثل أخصائي العلاج | withdrawn due to low loading |

| | | |
|--|---|--|
| | الطبيعي ، أخصائي علم النفس الرياضي ، أخصائي التغذية ، مدرب القوة والتكيف ، مستشار أسلوب الحياة ، إلخ. | |
|--|---|--|

Notes: ILTDF = Individualized long-term development focus, GSCS = Goal settings and coherent support, HQP = holistic quality preparation, (R) = reversely coded item

Chapter 4- Evaluation of the Jordanian Football Talent Development Environment

4.1. Introduction

Since his accession to the rule in 1999, King Abdullah II gave increased importance to youth issues. Specifically, sport became a significant element of his interest. As a result, Jordanian organizations have established long-term strategic goals to support a young nation. To begin with, King Abdullah launched the King Abdullah II Award for Physical Fitness in the 2005-2006 school year. They inserted daily physical activity in the school curriculum (King Abdullah II, 2015), which in turn, aims to improve the performance of young Jordanian from both genders. In the last 15 years, the need for the development of talented football players became one of the priorities for the people in charge in the Jordanian football association (Jordanian football association, 2020). Unfortunately, no research has been conducted on talent identification and development (TID) environment of any side of sports in the Arabic speaking countries including Jordan, which means it is not possible to develop specific evidence based practice at this current time.

A special interest in Football in Jordan can be attributed the fluctuations in the performances of the Jordanian teams over the past 10 years. For instance, the national football team has significantly improved in recent years. However, it has yet to qualify for the World Cup. Specifically, in 2013, Jordan lost a chance to qualify for the 2014 World Cup when they lost to Uruguay during inter-confederation play-offs. The women's football team is also gaining reputation, and in March 2016 they were ranked 58th in the world. The performance of both male and female Jordanian teams have been fluctuated over the recent years to end at 97th and 59th places respectively. This drop in the ranks for both national teams in Jordan triggers the need for assessing the talent development environment (TDE) within the Jordanian football context. Henceforth, the main aim of

this research study is to assess the strengths and weaknesses of the Jordanian football environment, including analysis of both male and female environments at development levels. Furthermore, the importance of evaluating the TDE systematically stems from the fact that Jordan as a developing country is expected to benefit from the potential understandings significantly, both within football but also through a larger and logical application of practices by coaches and their administrators within other sports.

Empirically, it is widely known that the TDE questionnaire (henceforth, TDEQ) is a measurable evidence-based method that can be used to evaluate the development environment and its influence on the emerging athlete (Martindale et al., 2010). The application of the TDE has been evaluated and examined in different studies utilising the TDEQ over the past 10 years (e.g., Wang et al., 2011; Lee et al., 2012; Tizro and Badami, 2018 among others), however, its applicability is still unknown within the Jordanian context. However, as seen in study 1 of this thesis, an Arabic version of the TDEQ has been developed and validated for use, which can be applied with confidence to the Jordanian context.

To date, work utilizing the TDEQ has fallen into one of three categories, 1) developing the TDEQ, including translating and validating the TDEQ for use in different languages; 2) using the TDEQ to understand the impact of the environment on athlete outcomes; and 3) using the TDEQ to evaluate strengths and weaknesses of TDEs and driving forward evidence based interventions.

As was outlined in study 1, the original TDEQ has been refined over time and there now exists a shortened version of the TDEQ called the TDEQ-5, which is a 25 item, 5 factor

tool (Li et al., 2015). A number of researchers have recognised the potential usefulness of the TDEQ and the TDEQ-5, and have developed and validated the TDEQs for use in other languages. Examples include Swedish, French, Norwegian, Korean, Chinese, Spanish, Portuguese, Iranian and Polish (Brazo-Sayavera et al., 2017; Costa et al 2017; Ivarsson et al., 2015; Gangso et al., 2021; Gesbert et al., 2021; Lee et al., 2012; Li et al., 2018; Tizro & Badami, 2018; Siekanska & Wojtowicz, 2017). Study 1 translated and validated an Arabic version of the TDEQ-5, which is a 26 item, 3 factor scales.

In the second category, researchers have been able to identify the most pertinent elements of the environment for predicting useful outcomes. For example, Wang et al., (2011) investigated the impact of the TDE (utilising the TDEQ factors) on the goal pursuits of athletes in Singapore, a country that, unlike Jordan, has established a specific institution (Sporting Culture Committee) whose goal is to promote a sporting culture in Singapore for achieving the country's dream of becoming one of the top 10 nations in Asia in sports. The study sample comprised 374 male and female athletes from a Singapore sports school. The participants were administered the Talent Development Environment Questionnaire (Martindale et al., 2010), the Basic Psychological Needs Scale (La Guardia, Ryan, Couchman, & Deci, 2000), Achievement Goals in Physical Education Questionnaire (Wang et al., 2007); and the Life Aspiration Inventory (Kasser & Ryan, 1996) in a quiet classroom under supervision. The participants filled in the questionnaires anonymously and were assured of the data confidentiality. Wang et al., (2011) emphasized that due to the high levels of extrinsic motivation for high sport performance in Singapore, coaches need to strongly promote intrinsic goals. It was highlighted that intrinsic goal striving was predicted by an environment that prioritized long-term

development, provided a sound support network and emphasised a mastery approach climate.

In another example, this time within a European, football specific context, researchers investigated the role of the environment on predicting wellbeing and stress in Swedish elite youth academy footballers, utilising the TDEQ (Ivarsson et al., 2015). In this study 195 Swedish young elite football players between 13 and 16 years enrolled at Swedish football academies participated. The results revealed that wellbeing and stress were related to the extent to which environments fostered good coach-athlete relationships, maintained a clear focus on athletes' lives inside and outside of football, emphasised long term, individualized development, and had well established relationships between parents, schools and club. Again, such understanding highlights the importance of the environment for looking after our young people and can help organisations target effective practice.

In the final category of research, there have been a number of researchers who have utilising the TDEQ to evaluate the strengths and weaknesses of different TDEs to good effect (e.g., Cupples et al 2020; Gangso et al., 2021; Gesbert et al ., 2021; Gledhill & Harwood, 2019; Hall et al., 2019; Mills et al., 2014; Thomas et al 2020) . For example, Mills et al., (2014) carried out a study evaluating male player perceptions of the strengths and weaknesses of professional football academies in the UK. Their study identified key strengths including the quality of coaching, organization and sport-related support and weaker areas including, athlete understanding, links to senior progression and key stakeholder relationships. Mills et al., (2014) suggest that coaches and clubs should pay close attention to the psychosocial environments of the athletes, as well as facilitating

well-integrated youth and senior teams, and good working relationships with parents. Interestingly, Gledhill and Harwood, (2019) investigated the experiences of UK footballers, using a sample of 137 UK-based female football players. They found that these players perceived a strong sense of long term development focus, although similarly to Mills work with males, relative weaknesses were related to communication and understanding the athlete factors. It appears the need to focus more holistically on athlete development may well be a challenge, or avenue for development across several environments within the UK football context.

In research of both Norwegian and Swiss elite youth academies long term development focus was also considered a strength, as it has been in UK contexts, however, the players in these environments did not perceive holistic preparation as a relative weakness (Gangso et al., 2021; Gesbert et al, 2021). Importantly, as with Martindale et al. (2013), better rated environments received higher TDEQ scores for holistic quality preparation, reinforcing this ‘holistic focus’ as a particularly important characteristic of effective academy environments (Gangso et al., 2021).

Clearly there is use in evaluating relative strengths and weaknesses of any given TDE, as it is important to know what priorities exist for development. This is why in a context such as Jordan, where limited work has been focused on improving TDEs within football from an evidence based stance, this may be particularly important. To highlight the efficacy of this process, Hall et al. (2019) evaluated the strengths and weaknesses of an elite rugby environment utilizing the TDEQ on an item by item basis. Based from this analysis the coaching team collaborated with senior players and management to successfully design,

implement and monitor an evidence based intervention to improve the quality of the TDE.

In summary, there is a clear need for an evaluation within Jordanian football to help guide evidence based suggestions for improvements. Given the usefulness of utilising the TDEQ for this purpose, as shown in previous work, this study aims to investigate the relative strengths and weaknesses of TDEs within Jordanian football context, in order to offer an initial evidence for helping to inform the development of talent pathways in Jordanian football.

4.2 Method

4.2.1 Participants

This study employs the same dataset from study one, which includes 564 Jordanian youth football players (319 males and 245 females), aged from 12 to 18 (mean: 14.38 and Std. Deviation: 2.15). Specifically, all the players had trained in the sport of football for between 1 and 5 years. All participants were considered to be 'talented' due to their selection onto a recognized 'pathway trajectory' from which elite status can be reached. Lastly, the selection of the participants for this research study is consistent with the main features of athlete and "excellence" environment under which questionnaire is originally developed.

4.2.2 Instrumentation: Talent Development Environment Questionnaire

The Arabic TDEQ version was employed in this study to assess the features of good practice as witnessed by athletes in their development environment. The Arabic TDEQ is a three factor, 26 item questionnaire. Based on main features extracted from the TD

literature, the designed TDEQ has been developed as a generic instrument that evaluates the sport features while taking the variations in the types of sports, ages, gender and culture. Specifically, the employed TDEQ in this study comprises three main factors: (1) The Individualized Long-term Development Focus (Hereafter, ILTDF), (2) Goal settings and coherent support (GSCS) and Holistic quality preparation (HQP). Furthermore, the questionnaire is measured on a 6-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree). There are seven negatively worded items in the TDEQ-5, these scores are reversed before data analysis. Adequate validity and reliability has been reported in previous research (e.g. Li et al., 2015; Study 1). On the other hand, the internal consistency of the questionnaire implies adequate reliability while the previous validity study proves the strong structural properties associated with the questionnaire. Giving these observations, the TDEQ is considered a reliable tool to proceed with in this TDE context.

4.2.3 Procedure

Ethical approval was granted by the Ethics Committee of Edinburgh Napier University (Ref: PG05). The researcher contacted the Jordanian Football Association in order to ask permission to request access to the players directly through their coaches. After permission was granted, the questionnaire was sent via e-mail from the researcher to coaches across a variety of clubs and academies. The researcher gave instructions to the coaches to administer the questionnaire in a consistent manner to the athletes and to facilitate the understanding of the questions being asked. Information regarding the potential risks of being involved in the study and the potential benefits from this study were given to the participants. They were asked to answer honestly and that there were no

right or wrong answers. The participants were informed that participating in the research was optional and participants can quit at any time without giving any explanations. In addition, the written consent of the parents of minors was obtained, and the clubs have a written consent of all the players to participate in any activity while they are in training or in any other place in the club. The questionnaire took about 20 minutes to complete.

4.2.4 Data Analysis

Given the outline of the questionnaire, previous studies including Mills et al. (2014) among others employ the 6-point scaling with the scores on responses range from strongly agree (1) to strongly disagree (6). However, in the same fashion as Mills et al. (2014) the scores were reversed leading to higher scores meaning higher perceptions of quality.

Mean and standard deviation subscale scores are calculated for each of the three factors. To proceed with the analysis further, we followed the recommendation of Martindale et al. (2010) by reporting the descriptive statistics of on an item by item basis for each factor. This allows a more nuanced, meaningful understanding of strengths and weaknesses as perceived by the players for different elements of their environment. Finally, items with the lowest mean scores should be given much more attention by the sport management team in Jordan since they have been identified as relatively the weakest element of the environments in question. Specifically, following Mills et al. (2014), higher scoring items in the top quartile (top 7 items) were categorized as strengths and relatively lower scoring items in the bottom quartile (bottom 7 items) were considered areas that needs improvement.

4.3 Results

The results of this study highlight the mean and the standard deviation related to the scale scores of the main variables to evaluate the perception of the players toward the overall TDE (see Table 4.1). In line with the recommendations by Martindale et al. (2010) and Mills et al. (2014) reporting of the descriptive statistics at an item level has also been carried out (see Table 4.1). Furthermore, Figure 4.1 shows the specific characteristics of the development environment classified into strengths and areas for improvements.

Table 4.1 Means and standard deviation for factor (scale) for the overall sample (Panel A), male sample (Panel B) and female sample (Panel C).

| N | Factor | Means | Standard deviation |
|---------------------------|--|-------|--------------------|
| Panel (A) Complete sample | | | |
| | Overall | 4.42 | 0.74 |
| 1 | Individualized long term development focus | 4.79 | 0.86 |
| 2 | Goal settings and coherent support | 4.75 | 0.90 |
| 3 | Holistic quality preparation | 3.72 | 1.19 |
| Panel (B) Male sample | | | |
| | Overall | 4.60 | 0.77 |
| 1 | Individualized long term development focus | 4.92 | 0.65 |
| 2 | Goal settings and coherent support | 4.77 | 0.92 |
| 3 | Holistic quality preparation | 4.09 | 1.04 |
| Panel (C) Female sample | | | |
| | Overall | 4.19 | 0.69 |
| 1 | Individualized long term development focus | 4.61 | 1.05 |
| 2 | Goal settings and coherent support | 4.71 | 0.86 |
| 3 | Holistic quality preparation | 3.24 | 1.20 |

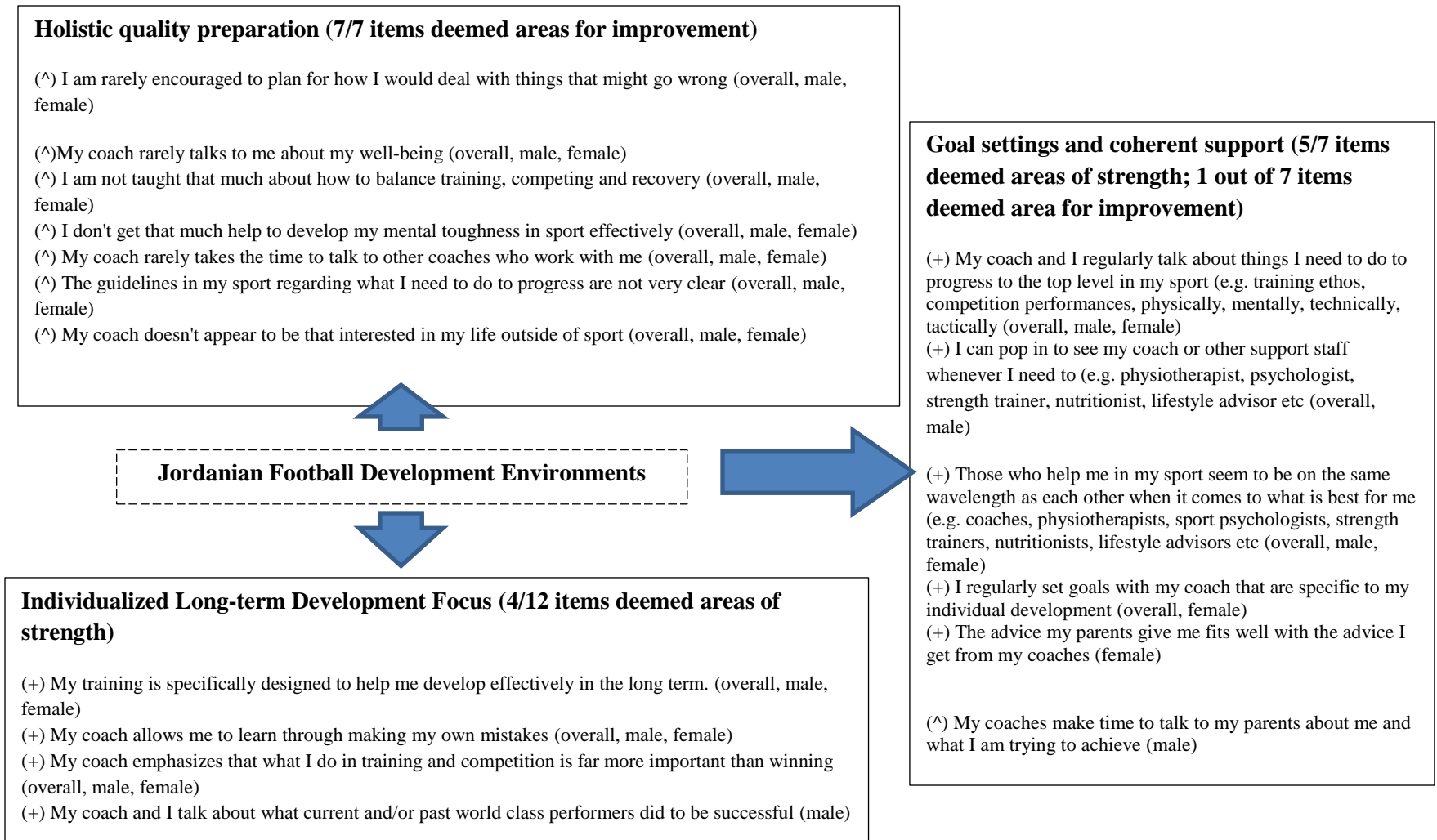


Figure 4.1 Features of the elite player development environments over the full sample, male and female only.

Notes: Items perceived as main strengths (+) and key areas for improvements (^).

Table (4.1) presents the means and standard deviation for each factor (scale) based on the assessment. Panel A reports the results over the full sample and indicates that the first factor namely the Individualized long term development focus has the highest mean value of 4.79 followed by the value of 4.75 from Goal settings and coherent support and the Holistic quality preparation has the lowest mean value of 3.72. The overall mean value that represents the three factors then becomes equal to 4.42.

The male sample-based results in Panel B follow the same overall pattern of factors from high to low whereby individualized long term development focus and Holistic quality preparation score relatively higher as compared to overall than Goal settings and coherent support. The single TDE score mean value representing the three factors together gave a result of 4.60, as compared to 4.42 for the overall sample. On the other hand, Panel C concerns the females' sample. Interestingly, there was a change of order of the relative high to low factor scores with the goal settings and coherent support obtained the highest mean value due to the relative reduction in the score for individualized long term development focus in the female sample. Lastly, the holistic quality preparation mean value was similarly the lowest scoring factor but was noticeably lower than the male sample. The overall mean value representing the three factors is 4.19, lower than the male sample.

This section proceeds by providing a more nuanced understanding of the Jordanian TDE by describing the descriptive statistics for the on an item by item basis below.

Table 4.2 Means and standard deviation for each question (overall sample n =564)

| Seq. | Code | Items | Means | Standard deviation |
|--|--------|--|-------|--------------------|
| Factor 1: Individualized long term development focus | | | | |
| 22 | ILTDF7 | My coach allows me to learn through making my own mistakes | 5.08 | 1.21 |

| | | | | |
|--|---------|---|------|------|
| 25 | ILTDF10 | My coach emphasizes that what I do in training and competition is far more important than winning | 5.03 | 1.23 |
| 19 | ILTDF4 | My training is specifically designed to help me develop effectively in the long term | 4.91 | 1.22 |
| 4 | ILTDF1 | My coach and I talk about what current and/or past world class performers did to be successful | 4.84 | 1.27 |
| 20 | ILTDF5 | I spend most of my time developing skills and attributes that my coach tells me I will need if I am to compete successfully at the top/professional level | 4.84 | 1.29 |
| 21 | ILTDF6 | My coach explains how my training and competition programmed work together to help me develop | 4.77 | 1.36 |
| 23 | ILTDF8 | I would be given good opportunities even if I experienced a dip in performance | 4.76 | 1.34 |
| 9 | ILTDF2 | Currently, I have access to a variety of different types of professionals to help my sports development (e.g. physiotherapist, sport psychologist, strength trainer, nutritionist, lifestyle advisor etc | 4.74 | 1.20 |
| 26 | ILTDF11 | My training programmes are developed specifically to my needs | 4.72 | 1.24 |
| 27 | ILTDF12 | My coaches ensure that my school/uni/college understand about me and my training/ competitions | 4.72 | 1.40 |
| 15 | ILTDF3 | I am involved in most decisions about my sport development | 4.59 | 1.19 |
| 24 | ILTDF9 | My progress and personal performance is reviewed regularly on an individual basis | 4.43 | 1.43 |
| Factor 2: Goal settings and coherent support | | | | |
| 6 | GSCS3 | My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically | 5.00 | 1.22 |
| 1 | GSCS1 | I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc | 4.97 | 1.08 |
| 7 | GSCS4 | Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc | 4.89 | 1.23 |
| 14 | GSCS6 | I regularly set goals with my coach that are specific to my individual development | 4.87 | 1.23 |
| 3 | GSCS2 | The advice my parents give me fits well with the advice I | 4.61 | 1.37 |

| | | | | |
|--|-------|---|------|------|
| | | get from my coaches | | |
| 8 | GSCS5 | My coach and I often try to identify what my next big test will be before it happens | 4.51 | 1.26 |
| 16 | GSCS7 | My coaches make time to talk to my parents about me and what I am trying to achieve | 4.39 | 1.50 |
| Factor 3: Holistic quality preparation | | | | |
| 5 | HQP2 | My coach doesn't appear to be that interested in my life outside of sport | 3.97 | 1.61 |
| 12 | HQP5 | My coach rarely takes the time to talk to other coaches who work with me | 3.91 | 1.69 |
| 10 | HQP3 | The guidelines in my sport regarding what I need to do to progress are not very clear | 3.85 | 1.56 |
| 11 | HQP4 | I don't get that much help to develop my mental toughness in sport effectively | 3.77 | 1.63 |
| 17 | HQP7 | I am not taught that much about how to balance training, competing and recovery | 3.65 | 1.59 |
| 13 | HQP6 | My coach rarely talks to me about my well-being | 3.60 | 1.67 |
| 2 | HQP1 | I am rarely encouraged to plan for how I would deal with things that might go wrong | 3.31 | 1.49 |

Table 4.3 Means and standard deviation for each question (males sample N =319)

| Seq | Code | Items | Means | Standard deviation |
|--|---------|---|-------|--------------------|
| Factor 1: Individualized long term development focus | | | | |
| 22 | ILTDF7 | My coach allows me to learn through making my own mistakes | 5.35 | 1.01 |
| 25 | ILTDF10 | My coach emphasizes that what I do in training and competition is far more important than winning | 5.27 | 1.00 |
| 19 | ILTDF4 | My training is specifically designed to help me develop effectively in the long term | 5.09 | 1.14 |
| 4 | ILTDF1 | My coach and I talk about what current and/or past world class performers did to be successful | 5.03 | 1.19 |
| 23 | ILTDF8 | I would be given good opportunities even if I experienced a dip in performance | 4.98 | 1.23 |
| 20 | ILTDF5 | I spend most of my time developing skills and attributes that my coach tells me I will need if I am to compete successfully at the top/professional level | 4.97 | 1.22 |
| 21 | ILTDF6 | My coach explains how my training and competition programmed work together to help me develop | 4.87 | 1.34 |

| | | | | |
|--|---------|---|------|------|
| 27 | ILTDF12 | My coaches ensure that my school/uni/college understand about me and my training/ competitions | 4.85 | 1.35 |
| 9 | ILTDF2 | Currently, I have access to a variety of different types of professionals to help my sports development (e.g. physiotherapist, sport psychologist, strength trainer, nutritionist, lifestyle advisor etc | 4.83 | 1.17 |
| 26 | ILTDF11 | My training programmes are developed specifically to my needs | 4.81 | 1.10 |
| 15 | ILTDF3 | I am involved in most decisions about my sport development | 4.55 | 1.21 |
| 24 | ILTDF9 | My progress and personal performance is reviewed regularly on an individual basis | 4.47 | 1.42 |
| Factor 2: Goal settings and coherent support | | | | |
| 1 | GSCS1 | I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc | 5.24 | 1.00 |
| 6 | GSCS3 | My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically | 5.08 | 1.26 |
| 7 | GSCS4 | Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc | 5.00 | 1.25 |
| 14 | GSCS6 | I regularly set goals with my coach that are specific to my individual development | 4.82 | 1.31 |
| 3 | GSCS2 | The advice my parents give me fits well with the advice I get from my coaches | 4.54 | 1.50 |
| 8 | GSCS5 | My coach and I often try to identify what my next big test will be before it happens | 4.46 | 1.24 |
| 16 | GSCS7 | My coaches make time to talk to my parents about me and what I am trying to achieve | 4.27 | 1.63 |
| Factor 3: Holistic quality preparation | | | | |
| 12 | HQP5 | My coach rarely takes the time to talk to other coaches who work with me | 4.44 | 1.53 |
| 5 | HQP2 | My coach doesn't appear to be that interested in my life outside of sport | 4.44 | 1.48 |
| 10 | HQP3 | The guidelines in my sport regarding what I need to do to progress are not very clear | 4.28 | 1.37 |
| 11 | HQP4 | I don't get that much help to develop my mental toughness in | 4.18 | 1.55 |

| | | | | |
|----|------|---|------|------|
| | | sport effectively | | |
| 13 | HQP6 | My coach rarely talks to me about my well-being | 3.97 | 1.59 |
| 17 | HQP7 | I am not taught that much about how to balance training, competing and recovery | 3.83 | 1.67 |
| 2 | HQP1 | I am rarely encouraged to plan for how I would deal with things that might go wrong | 3.53 | 1.56 |

Table 4.4 Means and standard deviation for each question (females sample N =245)

| Seq | Code | Items | Means | Standard deviation |
|--|---------|--|-------|--------------------|
| Factor 1: Individualized long term development focus | | | | |
| 22 | ILTDF7 | My coach allows me to learn through making my own mistakes | 4.73 | 1.35 |
| 25 | ILTDF10 | My coach emphasizes that what I do in training and competition is far more important than winning | 4.72 | 1.43 |
| 19 | ILTDF4 | My training is specifically designed to help me develop effectively in the long term | 4.67 | 1.29 |
| 20 | ILTDF5 | I spend most of my time developing skills and attributes that my coach tells me I will need if I am to compete successfully at the top/professional level | 4.67 | 1.35 |
| 9 | ILTDF2 | Currently, I have access to a variety of different types of professionals to help my sports development (e.g. physiotherapist, sport psychologist, strength trainer, nutritionist, lifestyle advisor etc | 4.64 | 1.23 |
| 21 | ILTDF6 | My coach explains how my training and competition programmed work together to help me develop | 4.64 | 1.38 |
| 15 | ILTDF3 | I am involved in most decisions about my sport development | 4.63 | 1.17 |
| 26 | ILTDF11 | My training programmes are developed specifically to my needs | 4.60 | 1.41 |
| 4 | ILTDF1 | My coach and I talk about what current and/or past world class performers did to be successful | 4.58 | 1.32 |
| 27 | ILTDF12 | My coaches ensure that my school/uni/college understand about me and my training/ competitions | 4.56 | 1.45 |
| 23 | ILTDF8 | I would be given good opportunities even if I experienced a dip in performance | 4.47 | 1.43 |
| 24 | ILTDF9 | My progress and personal performance is reviewed regularly on an individual basis | 4.37 | 1.44 |
| Factor 2: Goal settings and coherent support | | | | |

| | | | | |
|--|-------|--|------|------|
| 14 | GSCS6 | I regularly set goals with my coach that are specific to my individual development | 4.93 | 1.12 |
| 6 | GSCS3 | My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically) | 4.88 | 1.16 |
| 7 | GSCS4 | Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc) | 4.75 | 1.19 |
| 3 | GSCS2 | The advice my parents give me fits well with the advice I get from my coaches | 4.71 | 1.17 |
| 1 | GSCS1 | I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc) | 4.62 | 1.07 |
| 8 | GSCS5 | My coach and I often try to identify what my next big test will be before it happens | 4.58 | 1.29 |
| 16 | GSCS7 | My coaches make time to talk to my parents about me and what I am trying to achieve | 4.55 | 1.31 |
| Factor 3: Holistic quality preparation | | | | |
| 17 | HQP7 | I am not taught that much about how to balance training, competing and recovery | 3.41 | 1.43 |
| 5 | HQP2 | My coach doesn't appear to be that interested in my life outside of sport | 3.36 | 1.56 |
| 10 | HQP3 | The guidelines in my sport regarding what I need to do to progress are not very clear | 3.29 | 1.61 |
| 11 | HQP4 | I don't get that much help to develop my mental toughness in sport effectively | 3.25 | 1.58 |
| 12 | HQP5 | My coach rarely takes the time to talk to other coaches who work with me | 3.22 | 1.65 |
| 13 | HQP6 | My coach rarely talks to me about my well-being | 3.11 | 1.65 |
| 2 | HQP1 | I am rarely encouraged to plan for how I would deal with things that might go wrong | 3.01 | 1.34 |

4.3.1 Item by Item analysis

The Individualized Long-term Development Focus

The Individualised Long Term Development Focus factor consists of 12 items, and is associated with the extent to which athletes were afforded individualized opportunities which focus on their

preparation in the long term (e.g. learning from own mistakes, the importance of performance during training, learning from the experiences of past performers, the ability of the coaches of understanding athlete's needs).

In the overall sample analysis, this factor had the highest mean value of 4.79, with three out of the 12 items being associated with strengths of the development environment available across Jordanian football youth pathways, and none considered relative areas of weakness. These strengths included: Item 22 - My coach allows me to learn through making my own mistakes; Item 25 - My coach emphasizes that what I do in training and competition is far more important than winning; and Item 19 - My training is specifically designed to help me develop effectively in the long term.

Item 22 - My coach allows me to learn through making my own mistakes had a mean score of 5.08, where 78% of players agreed or strongly agreed with this item. Item 25 -My coach emphasizes that what I do in training and competition is far more important than winning had a mean score over 5 (5.03) and a high proportion agreeing (74%). Finally, Item 19 - My training is specifically designed to help me develop effectively in the long term, although had a mean score marginally under 5 (4.91), and almost 70% of players agreed or strongly agreed that coaches focused on long term development effectively.

There were strong similarities between the genders, where these three items were considered strengths overall and for both males and females separately as well as in the overall sample. Interestingly, males also identified Item 4 - My coach and I talk about what current and/or past world class performers did to be successful, as a relative strength, with a mean score of 5.03, and almost 70% agreeing or strongly agreeing with this item.

On average, the lowest scoring item in this factor was item 24 - My progress and personal performance is reviewed regularly on an individual basis, which had a mean score of 4.53, with over half of the players agreeing or strongly agreeing (55%). This could be argued to still be a qualitatively positive item with such a high mean and agreement rate.

Goal Settings and Coherent Support

This factor comprises seven items related to the finding the best path and support network for the athletes toward reaching their goals. These include, for example, setting goals on regular basis with the coaches, determining the specific requirements for sport development such as training ethos, competition performances, and ensuring coherent support from significant others.

In the overall sample analysis, this factor had the second highest mean value of 4.75, with four out of the seven items being associated with strengths of the development environment and none considered a relative areas of weakness. However, there was one additional item that was deemed a strength by the female sample, and one area of weakness identified in the male cohort.

More specifically, Item 6 - My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically had a mean score of 5.0, with 71% agreeing or strongly agreeing. Item 1 - I can pop in to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc received a mean score of 4.97, with 70% agreement. Item 7 - Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc scored an average of 4.89, where 70% were in agreement, and finally, Item 14 - I regularly set goals with my coach

that are specific to my individual development had a mean score of 4.87 with 66% agreement by the participants.

When considering gender, females identified strength items 6, 7, 14 (as identified in the overall sample) and also identified Item 3 - The advice my parents give me fits well with the advice I get from my coaches as a strength (mean – 4.71, 54% agreement). Whereas males identified strength items 6, 1, and 7 in line with the overall sample, but also identified one overall relative weakness in item 16 - My coaches make time to talk to my parents about me and what I am trying to achieve (mean – 4.27; 58% agreeing or strongly agreeing and 28% disagreeing in some way). This was also the lowest overall sample item within this factor (mean - 4.39, 54% agree; 23% disagree in some way).

Holistic Quality Preparation

The seven items within this factor relate to the extent to which intervention programmers are prepared both inside and outside of sports settings (e.g., coach focussed on wellbeing, clear guidance & transition planning, mental preparation, and balanced life/sport preparation).

In the overall sample analysis, this factor had the lowest mean score of 3.72, one whole point or more below the other two factors. All seven of the items within this factor were identified as relative questionnaire weaknesses for overall sample, males and females. It is also important to note that females (mean - 3.24) scored noticeably lower than males (mean - 4.09) on this item. Interestingly it is also noteworthy that the mean score for males falls on the positive side of the Likert scale (i.e. agree a little bit), while the mean for the females encroaches the negative side of the scale (i.e. disagree a little bit). Please note, in this context due to reverse scoring, ‘agreeing’ with the item means a positive experience with the item, rather than agreeing with the negatively worded item directly.

Following on from this note, Item 2 - I am rarely encouraged to plan for how I would deal with things that might go wrong (27% agreement; 62% disagreed to some degree); Item 13 - My coach rarely talks to me about my well-being (39% agreement; 50% disagreed to some degree); Item 17 - I am not taught that much about how to balance training, competing and recovery (41% agreement; 47% disagreed to some degree); Item 11 - I don't get that much help to develop my mental toughness in sport effectively (44% agreement; 46% disagreed to some degree); Item 10 - The guidelines in my sport regarding what I need to do to progress are not very clear (45% agreement; 42% disagreed to some degree); Item 12 - My coach rarely takes the time to talk to other coaches who work with me (45% agreement; 42% disagreed to some degree); and Item 5 - My coach doesn't appear to be that interested in my life outside of sport (48% agreement; 43% disagreed to some degree) had mean scores ranging from 3.31 to 3.97 respectively.

4.4 Discussion

This aim of this study was to investigate the relative strengths and weaknesses of TDEs within Jordanian football context, in order to offer an initial evidence for helping to inform the development of talent pathways in Jordanian football. This was done by gleaning feedback from the experiences of 564 young male and female footballers, who train with academies and club across different geographic regions in Jordan.

Overall, the results revealed that Individualised Long Term Development Focus (mean 4.79; SD 0.86) and Goal Setting and Coherent Support (mean 4.75; 0.90) were the strongest features of the environment, with Holistic Quality Preparation the lowest scoring factor (mean 3.72; SD 1.19). When considering gender, overall females scored lower than males. In particular, females scored on average 0.85 points lower for Holistic Quality Preparation and on average 0.31 points lower for Individualised Long Term Development Focus. While mean scores for Individualised Long

Term Development Focus and Goal Setting and Coherent Support were in the region of ‘agree a little bit to agree’ overall and for males and females, for Holistic Quality Preparation females leaned towards ‘disagree a little bit’ for their experiences of this type of support, highlighting this as a real need for focus.

Given the different factor structures of the TDEQ and TDEQ-5, it is a little challenging to compare results against previous research, however, while not exclusively, it is typical for ‘Holistic Quality Preparation’ or related factors/items to score lower than other factors/items. For example, Martindale et al., (2012) found that the factors ‘Understanding the Athlete’ and ‘Quality Preparation’ (which predominantly formed the new factor ‘Holistic Quality Preparation’ of the TDEQ-5) scored lowest in ‘lower quality’ rugby and swimming academies. Similarly, this was also seen in Premier and Championship football academies in the UK (Mills et al., 2014) and in Australian rugby league school-based talent development programs (Cupples et al., 2020). Two thirds of playing groups (U16, U18, U21, school, senior club, international) in female amateur Irish hockey found ‘Holistic Quality Preparation’ was the lowest scoring feature of their environment experiences (Curran et al., 2020).

Other research has found holistic quality preparation to score low down but not the lowest factor in talent development environments, for example, female football development squads and centres of excellence in the UK (Gledhill & Harwood, 2019) and Caribbean track and field athletes (Thomas et al., 2020). Meanwhile, Norwegian and Swiss football academies have not found Holistic Quality Preparation to feature low down the list of experiences at all (Gangso et al., 2021; Gesbert et al 2021).

It may be that other TDEQ factors fit more naturally within a coaching role or environment and as such are easier to cater for – for example, items within other factors include providing a

network of support professionals, reviewing performance, setting goals, developing suitable training programmes, allowing athletes input into their development, involving parents etc. On the other hand, Holistic Quality Preparation includes a number of items related to psychological factors such as mental toughness development, taking time to understand and cater for athlete wellbeing, providing clarity to the path ahead, communicating with other coaches about individual athletes. All of which may be more challenging for coaches in terms of their skill set but also time available to do their jobs. It also may be of course, that environments and coaches don't yet value these features of the environment as highly as they could or should. For example, Pain & Harwood (2007) previously found barriers to sport psychology support within English football relating to negative perceptions of sport psychology, lack of knowledge and perceived value.

Of course, this is very important for development environments to incorporate successfully where possible as the TDEQ measures features of the environment which have been shown to impact positively on the development and performance of athletes (e.g., Martindale et al., 2005, 2007, 2010). Indeed, athlete progression, burnout, wellbeing, motivational outcomes and goal orientations, mental toughness have all been shown to be predicted by the Holistic Quality Preparation experience (e.g., Andronikos et al., 2021; Ivarsson et al., 2015; Li et al., 2017; 2019; Martindale et al., 2012; Thomas et al., 2020; Wang et al 2011; 2016).

However, it is important to say that all factors within the TDEQ have been associated and shown to predict different athlete outcomes as outlined above, in particular Long Term Development Focus, Communication, and Support Network (e.g., Li et al., 2017; 2019). Indeed, it would be appropriate to highlight that these elements of the environment are very unlikely to work in isolation. Evidence of this was found by Hall et al., (2019), who used the TDEQ as a mechanism

for assessing, driving and monitoring the impact of an evidence-based intervention in an elite rugby environment. The results found a significant impact of the intervention well beyond the focus of the intervention itself, impacting across items and factors as ‘positive collateral impact’.

It is clear that Holistic Quality Preparation is an area for Jordanian TDEs to improve, particularly in female football. However, for males a relative weakness was also identified as the time that coaches made to talk to parents about the players. It is well known that sport is not considered a priority by families in some under developed countries (e.g. Elumaro, 2016), so it is important not to forget this potentially very important and culturally relevant point.

On the other hand, it is important and promising to recognise relative strengths in this research, specifically within the factors Individualised Long Term Development Focus and Goal Setting and Coherent Support. Specifically, overall strength items within Individualised Long Term Development Focus included: “My training is specifically designed to help me develop effectively in the long term”; “My coach allows me to learn through making my own mistakes”; “My coach emphasizes that what I do in training and competition is far more important than winning” and for males “My coach and I talk about what current and/or past world class performers did to be successful”. This is very important as research has shown the importance of a long-term agenda and role models (e.g., Henriksen & Stambulova, 2019), and learning to take responsibility for learning (Toering et al., 2009). For Goal Setting and Coherent Support, relative strength items included: “My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically”; “Those who help me in my sport seem to be on the same wavelength as each other when it comes to what is best for me (e.g. coaches, physiotherapists, sport psychologists, strength trainers, nutritionists, lifestyle advisors etc”); and for males “I can pop in

to see my coach or other support staff whenever I need to (e.g. physiotherapist, psychologist, strength trainer, nutritionist, lifestyle advisor etc”, and for females “I regularly set goals with my coach that are specific to my individual development”; and “The advice my parents give me fits well with the advice I get from my coaches”. Equally, this is good news because research has highlighted the importance of regular coach-athlete communication (Rhind & Jowett, 2010), support networks (Henriksen et al 2011; Ivarsson et al., 2015) coherence between coaches and support staff (Pankhurst et al., 2012), goal setting (Kingston & Wilson, 2008) and the role of parents (Harwood & Knight, 2015) in talent development.

These results provide some future suggestions for the priorities moving forward in order to improve talent development within Jordan. However, it is important to recognise the generic nature of the results, and no doubt there will be contextualised and specific issues in different regions. Indeed, one example of this is the different evaluations between male and females. Perhaps unsurprisingly female TD in Jordan is less well supported than male TD. To make a difference to female football in Jordan the JFA might consider doing the following. First, the current head of association (Prince Ali Ben Al-Hussain) could elaborate more on the support being given to the female teams at different ages by providing them with more financial support and ensuring on the high level of their quality preparation. Doing this, in turn may well be reflected on the performances and development of the female teams on the ground. Second, less effectiveness in communication on the part of coaches when it comes to female training pertaining to areas of weaknesses have to be perceived to be contributing factors in female football players not developing to a senior level. In other words, evidence suggests that a coach’s ability to interact effectively with the Jordanian female players regarding the requirements for developing through levels is an important consideration for successful career progression in

female football. This again triggers the need for asking the coaches to better communicate with the female players in Jordan before asking them to achieve higher performance in matches. Regular visits by the head of JFA and his delegates might be required in this case. It is known that male and female communication outside the family is more difficult in a country like Jordan. As such, this may identify a specific cultural barrier to overcome.

In summary, this study has helped to identify some strengths and weaknesses of talent development environments within Jordanian football. However, it is important to recognise some limitations. These limitations can be summarized as follows. Firstly, the questionnaire has been filled out by football players only. Therefore, it is important for future research to glean information from other relevant parties such as coaches, administrators, parents, schools etc. If understanding is to generalise to other regions or even other sports, further contextualised work would be required.

The third limitation is that TDEQ-3 tool was generic for all sports, this implies that TDEQ-5 is not a specific tool for single or a group of sport games. In other words, TDEQ might need to be developed into a football specific tool, as other researchers have suggested. This is because every sport game has different conditions. Indeed, Jordan or even countries within the Middle East as a whole may have significant cultural differences that the TDEQ does not consider in full. It would seem that there is a need to gain a deeper understanding of the state of football development within Jordan to aid the exploration of how Jordan can improve the system moving into the future. As such, the next two studies in this thesis aim to explore qualitatively the perceptions of talent development in Jordanian football from an elite player, coach and administrator perspective to supplement the previous two quantitative studies.

Chapter 5- An investigation of the current state of play, barriers and solutions to effective Talent Identification and Development environments within Jordanian football: player perspectives

5.1 Introduction

Within football, talent identification and development practices are multidimensional where many different stakeholders participate in different roles deciding, controlling, developing and realising the various methods which support gifted young footballers to achieve their goals (Vaeyens et al. 2008). Current studies in this area generally focus on specific physical characteristics, for example, fitness levels, coordination and response, as well as psychological ones which are seen as adding to their skills and probability of success in the game (Gledhill et al. 2017; Sarmiento et al. 2018). Such a focus is supported by long-term research which correlates such performance skills and individual features at a young age with success in professional football as an adult (Cunningham et al., 2022; Heilmann et al.2022).

As shown from the previous chapters, there are limited systems and structures available in Jordan to develop players in sports. In football, Jordanian teams, both female and male, are as yet to make a significant impact on the world stage, like reaching the World Cup. However, regionally, in the last couple of decades some significant improvements have been demonstrated (Altwassi, 2015). These improvements can of course be viewed in terms of success in competition. Starting in 2004 the Jordanian male team was ranked 37 in the world based on their success to achieve a quarter final place in the Asian Cup that year. Following this, key milestones in competition included a placing of second in the Pan Arab Games in 2011, which were held in Qatar. The Jordan national team also had their first chance to qualify for the FIFA

World Cup when they reached the final qualifying round in the Asian group in 2014, ultimately placing third and missing qualification.

Moreover, Jordan established a female national team in 2005 and it immediately saw some promising performances in competition. Several times the team has performed well and secured victory in the west Asia champion (2005, 2007, 2014 and 2018). This success was replicated in 2010 in the Arab Cup. The prominence of women's football in Jordan and the Arab region was strengthened in 2018 when the country played host to the Women's Asian Cup, the first time it was held in any Arab country. It also hosted the 2017 Women's U-17 World Cup. The team has benefited greatly from the personal patronage of the Prince Ali Bin Hussein. This grouping was very active in the successful campaign to remove the ban on the wearing of headscarves when playing, which was lifted in 2018.

Overall though, performance and levels of development in football, along with other sports are viewed as problematic in Jordan (Albdour, 2019). The levels of sports development and preparation is reflected in the performances on the international stage, in particular systems of Talent Identification and Development (TID) in Jordan, as the Jordanian national team have not yet reached the World Cup or reached further than the quarter-finals in the Asian Cup (AFC). Frequently, it is maintained that while the football association, state institutions and key figures are focused on sports development in terms of developing policies and procedures to manage sports development systems and structures, the actual application and execution of these policies and procedures are fundamentally limited for socio-political as well as economic reasons and there has been little pay-off in terms of competition performance (Albdour, 2019). Andreff (2001) noted that in Jordan, Talent Development Environments (TDEs) remain woefully underdeveloped, with shortages of investment funding and absence of infrastructure and

research. The modest TDEs in Jordan are mirrored by the modest success at an international level. For this reason, it could be important to focus research on the talent development systems and environments which occur in Jordan to understand the factors for success in TID.

Prior studies in a range of different national and cultural contexts have laid out the stages in approaches to development (Bloom, 1985; Balyi & Hamilton, 2004). The need for long-term development strategies, and phased approaches by age are fundamental parts of any successful TID (Bloom, 1985). The social and cultural context where a TID is practised is also seen as an important factor and studies have shown the dangers of importing TID systems from one socio-cultural context to another (Henriksen et al. 2014). For instance, the cultural specificity of TID was demonstrated in a study by Collins and Bailey (2013) on importing features of a talent development system from systems from foreign cultures Australia into the United Kingdom.

Again, the phased approach to sports development, where models set out age and skill specific stages to monitor and develop performance and practice are widespread (Cote, 1999; Balyi, & Hamilton, 2004, Ericsson, 2020; Ford et al., 2020). Nonetheless, continued research has shown that personalised processes with emphasis on fundamental change points are most important for the development of talent, especially as opposed to advancing through standardised stages at set times (Abbott & Collins, 2004; Martindale et al, 2007; 2010; Williams et al, 2020; Hall et al, 2019).

Psychological factors have been found to be important in the process of developing the varied, active and multi-faceted phenomenon that is talent. Several studies have drawn attention to a wide range of psychological elements like realistic performance evaluation, goal setting and commitment as key to determining the possibility to transform potential for talent into successful

performance (Abbott and Collins, 2004; Sarmiento et al. 2018; Pedraza-Ramirez et al. 2020). Additionally, evidence from diverse talent realms, such as musicians, have highlighted psychological elements in recognising and optimising potential. MacNamara et al. 2010) highlighted the development and engagement of psychological characteristics of developing excellence (PCDEs). These act as facilitating factors of successful mediation of the changes from one stage to another in the development process. Some examples of PCDEs which support aid positive stage transition are; ability to work on weaknesses, commitment, competitiveness, coping under pressure, determination and self-belief.

Environmental issues are another important area in successful sport development TDEs. Martindale et al. (2007) found five main elements in a successful TDE; emphasis on appropriate development vs. early success, individualised and ongoing development, integrated, holistic and systematic development, long-term aims and methods and wide ranging coherent messages and support. The roles of significant people in an athlete's life; teachers, parents and other family members as well as peers is also emphasised in the process of talent development (Martindale et al. 2007; 2010; MacNamara et al. 2010; Abbott & Collins, 2004). Martindale et al. (2007) further suggest the need for a network of consistent and reasoned aids to support effective development of future high performance athletes. Consequently, it is essential to take into account socio-cultural differences and their impact on TID systems and initiatives, such differences effect the perception of the important people in the athlete's life on their development programme (Khaleque & Rohner, 2014; Sarmiento et al. 2018; Bennett et al. 2018).

Until now, the majority of TID projects have focused on specific societies/cultures, mainly North America, Australia, Europe, however, expectations and opportunities are social and culturally defined for TID. For example Izvand (Alzoubi, 2019), low quality implementation of policies and

programmes in sports TID (Albdour, 2019), broader socio-economic problems, limited finances impacting on injury and recovery (Nawafah, 2013). It is important to understand how athletes negotiate such issues and obstacles, which are deeply connected to their social, cultural and economic context, to become high performing successful athletes. As such, the goal of this research is to investigate the current state of play, barriers and solutions to effective Talent Identification and Development environments within Jordanian football from successful elite player perspectives.

5.2 Methodology

5.2.1 Design

The study sought to improve knowledge of the socio-cultural context of TID in football in Jordan, and difficulties which footballers face and how they confront them to develop a successful career in sport. A qualitative methodological approach was selected as the most appropriate to explore the depth and complexity associated with these challenges for these athletes. With qualitative methodology the researcher is able to continue inquiries with additional questions and probes which allows flexibility for the study to shape itself to the actual area examined and to meet the research objectives (Guest, Namey, & Mitchell, 2013). Furthermore, a qualitative approach may produce more specific detailed data to give a much more complete idea of the phenomenon studied, as participants are freer to share their experience and knowledge without being limited by the method of inquiry (Neuman, 1997; Berg, 2004). Finally, this approach was also appropriate for mining historical information about the participants process to becoming an elite athlete, as well as reducing the possibility of misunderstanding in the data gathering process, as participants were able to ask for clarification

on questions and the researcher was able to repeat or question the participant if there appeared to be misunderstanding (Guest et al, 2013).

5.2.2 Sample size

There are generally between one and twenty one participants in qualitative studies (Carless & Douglas, 2012; Papathomas & Lavalley, 2012). It is not useful to develop large samples for a qualitative study as the rich detail which is sought will come to be repeated with a large sample (Ritchie, Lewis, and Elam, 2003; Creswell, 2013). There is no interest in issues of prevalence or incidence, so there is no fixed idea of an ideal sample size. One strategy used to identify sample size is saturation.

Morse (1995) defines saturation as collecting data until no new information is gathered. Furthermore Guest, Bunce, and Johnson (2006) found that for studies with highly homogeneous populations (players who have the same characteristics), it is enough for researchers to conduct six interviews to develop significant themes and valuable analyses. Mason (2010) found that a study need only be as large as to ensure that the important views are brought out.

5.2.3 Participants

Six Participants were all current members of Jordanian national football teams (football players, both male & female), which allowed the effectiveness of the Talent Identification and Development to be assessed against the demands of a professional sport environment. The table below (5.1) show information about the players participating in this study, the table shows there were four male and two female participants and the players' ages range from 25 to 33, with an average age of 29.8. Also, all the Participants have University education except one player who has a high school degree. Furthermore, the experiences of playing football for Participants were

between (10-20) years. Three measures were used to identify participants as elite athletes. First, participation in one or more international tournaments (e.g., the Asian Cup) and a member of a premier league football team in Jordan which is the top professional tier. Second, membership of the Jordan Football Association and all of them were from the first elite team as well as played in the national team. Third, a significant part of their career took place in Jordan with no sporting activity abroad prior to be selected onto the male or female Jordanian National Football Team. This final measure guarantees that participants have worked under the Jordanian TID context without significant external effects on their progress.

Table 5.1 participants by age, gender, education and experience

| Participants | Age | Gender | Education | Experience (National teams) |
|---------------------|------------|---------------|--------------------|--|
| P1 | 25 | Male | Uni. Undergraduate | 11 |
| P2 | 28 | Female | Uni. Undergraduate | 13 |
| P3 | 25 | Male | Uni. Undergraduate | 10 |
| P4 | 36 | Male | High School | 20 |
| P5 | 32 | Male | PhD | 12 |
| P6 | 33 | Female | Master in Sport | 16 |

5.2.4 Procedure

5.2.4.1 Recruitment

Ethical approval was sought from the Research Ethics and Governance Committee of the School of Applied Sciences, Edinburgh Napier University and approved prior to any contact with potential participants. The Jordan Football Association (JFA) was approached to assist with

participant recruitment and contacted potential participants. Potential participants were also contacted personally by the researcher through their own network of contacts. A participation e-mail was sent to potential participants with details of the study and participants role. It was made clear that there was no compulsion to take part in the study and participants were aware they could withdraw from taking part at any time. Participants gave their written consent for involvement and were made aware that their participation would remain confidential and all information anonymised.

Six elite football players were recruited from a total of 14 participants contacted. It was clear that COVID-19 affected my ability to recruit participants for this study. I went to Jordan in February 2020 to collect the interview data and Jordan was in full lockdown for much of this time, and potential participants appeared to be less willing to participate than I expected. Additionally, I believe saturation was gained after 6 interviews. All personal information and other data were securely maintained on a computer with password protection accessible only to the researcher and supervisor. All participants are anonymised in all reports, presentations or publications.

5.2.5 Instrumentation

This study used semi-structured interviews to examine the participants' experiences of talent identification and development processes in Jordanian professional football. The methodological tool of semi-structured interviews has become widespread and offers the opportunity to appreciate more fully, in a dialogue, the responses of participants (Bryman, 2004; Soobaroyen and Mahadeo, 2012; McNulty et al. 2013).

To carry out semi-structured interviews, the researcher created a list of questions, known as an interview guide, which assisted in directing the interview 'conversation' towards all key issues,

whilst allowing the participant the possibility to share information or views at any time (Bryman, 2004; Humphrey and Lee, 2004). The interview guide is shown in figure (1)

Figure 5.1 Interview questions used for data collection from player's perspective

Interview Guide

1. Tell me a little about yourself and your current sporting achievements?
2. How did you get involved in football and progress from the initial participation to where you are today?
3. What kinds of support or expertise were particularly useful for your development to become a national football player?
4. Are there any stages or points in your development and found special difficulty?
5. How did you manage and overcome these difficulties?
6. What are the factors that distinguish you from other "talented" footballers who have not had a chance?
7. Tell me about the current structure of football development in Jordan and what needs to be improved or changed to improve the talent development environment in Jordan?

To assess the interview guide and allow for any adjustments as required, a pilot interview process was carried out. Pilot interviews were completed with two members of the Jordanian national football team. The first pilot participant was identified through personal contacts of the researcher. The study and interview process was explained and carried out and a small process of

feedback on the interview was made. This contact also put the researcher in touch with another professional footballer for a second pilot interview. The researcher considered the pilot process in terms of altering and developing the interview process. First, the question order was altered to develop a more chronological flow in the interviews where participants describe entry process to the sport before their transition to senior level. Second, as participants had fed back that the meaning of some questions was not clear, their wording was changed to more simply and directly address the issue.

In line with the pilot study feedback and suggestions by Watson (1997), interviewer bias was minimised by ensuring that participants could share the experiences they considered important in their training processes, regardless of the interview guide. Patton (1990), Creswell, (2016) produced helpful guidelines on avoiding bias which were incorporated into the study, such as adopting a neutral position when probing participants, rapport building and open responses (Backstrom & Hursch-Ceasar, 1981). The final analysis contained the pilot interviews as they were of adequate quality and pilot participants met the final participant criteria.

5.2.6 Interview process

Participants were provided with details of the interview and key questions prior to the interview date to have the opportunity to understand the process (Martindale et al., 2007). This allows participants to think about their answers and so richer and denser data may be gathered (Burke & Miller, 2001). It was important for the study to carry out interviews face-to-face and not by telephone or online as: (i) body language such as facial expressions is important for dialogue, and are only present when working face-to-face (Bryman, 2004; Yazdifara et al., 2008); and (ii) A comfortable atmosphere and trust between interviewer and interviewees can be established more effectively in person (Bryman, 2004). The primary researcher conducted all interviews,

each of which lasted approximately 60 minutes. All interviews were conducted and recorded in Arabic, and then the researcher has translated and transcribed verbatim to English language. The interview guide ensured that each in-depth examination of the TID was common to every participant footballer with same structure of questions, though additional elucidation and probing was conducted as necessary (Patton, 1990; Creswell, 2016)

5.3 Data Analysis

Inductive analysis was used on the interview data in line with to the techniques of Kingston, Edwards, Hardy, and Gould (2002). The data was read and re-read with the researcher making preliminary notes. Initial codes for the data were generated and started an exploration for themes, which were developed in relation to the data set (Braun & Clarke, 2019). The inductive method incorporated coding experience and inferences of similarity (Patton, 1990). Precisely, themes were developed by the comparison of coded experiences and constellations of analogous experiences. The process progressed from coding experience to similarity inferences. Coded experiences were continuously matched and themes were produced from constellations of related experiences. These themes were constantly linked to produce categories. Next these themes themselves were compared to each other and grouped into specific and general categories and this comparison process was carried out until the data was saturated. Lastly, a definition and name was assigned to each theme and accompanied by quotes in the results write up (Martindale et al. 2007).

Additionally, reliability checks were conducted in cooperation with the study supervisor (Scanlan, Ravizza, & Stein, 1989). It is further suggested that an expert in the area be consulted after each step in the data analysis process to examine the interpretation and understanding of data by the main researcher and so reduce bias in the study (Shenton, 2004). To this end,

fortnightly meetings between the researcher and supervisor were planned to review the analysis and developing results. This facilitated continuous review of the coding process and discussion of any issues of erroneous interpretation, assumption or emphasis in the data analysis. Review and discussion continued within these reliability checking processes to the point that full agreement was reached between the supervisor and researcher. In the results, subthemes, as well as themes, were offered with quotes to exemplify the support for their inclusion.

5.4 Establishing credibility

Following previous studies (e.g., Scanlan, Ravizza & Stein, 1989; Patton, 1990; Morse et al., 2002; Creswell, 2016), this study demonstrates credibility through the steps taken during the research process. First, interview questions were tested to be open-ended and unbiased. Also, participant agreement on the accuracy of the data gathered was achieved by sharing both the raw transcripts and the analysed data. Second, the main supervisor and an independent researcher (who is not part of the research team, but he is an expert in the field of this study) conducted independent reliability checks to confirm the study process and results. Third, the feedback was received from further three experts in the field of TD by sharing the results with them, and ensuring agreement on reliability checks of the study results. Third, feedback was received from three other experts in the field of TD by sharing the results with them, and also ensuring that checks for the reliability of the study findings were agreed. Finally, the researcher discussed the details of the results and reliability checks with the supervision team to agree on the order of presentation of the themes within the study.

5.5 Results

The findings from the data analysis revealing the nature of athletes' development in Jordan are illustrated in table 4.2. Four general themes were highlighted 1) culture within Jordan, 2) lack of professionalism and resource within Jordanian Football Structures, 3) talent development planning & expertise and 4) coach education. A broad description of the general themes and sub-themes is presented in this section with example quotes to support emerging pattern.

| Themes | General themes |
|---|--|
| <p>5.5.1.1. In General, There are Low Levels of Support for Football Development as a Profession.</p> <p>5.5.1.2. Lack of Support From Educational Institutions (e.g., Schools or Universities).</p> <p>5.5.1.3. Family is Often Against the Pursuit of Football for their Children</p> <p>5.5.1.4. There is Even Less Support for Females to Pursue Football</p> <p>5.5.1.5. However, if Family Support is Available, it can Make a Big Difference</p> <p>5.5.1.6. Players who Did Get Support From a Parent, Teacher or Coach are lucky, and Very Grateful</p> <p>5.5.1.7. Given this General Lack of Support for Football Pursuits, Self-Motivation and Confidence are Very Important Factors for Successful Development</p> | <p>Culture within Jordan</p> |
| <p>5.5.2.1. Lack of Professionalism, Strategic Planning and Organisation</p> <p>5.5.2.2. Poor Infrastructure</p> <p>5.5.2.3. Not Enough Competition, but It is Changing</p> <p>5.5.2.4. Lack of management</p> <p>5.5.2.5. Lack of Financial Incentive or Support for Players</p> <p>5.5.2.6. Lack of Support for Injuries and Recovery</p> <p>5.5.2.7. Need for Teams of Coaches and Specialists to Support Players</p> | <p>Lack of Professionalism and Resource within Jordanian Football Structures</p> |
| <p>5.5.3.1 Low Level of Active Talent Development for Young Players</p> <p>5.5.3.2. Lack of Support for Transition to Adult Football</p> <p>5.5.3.3. A Need to Develop Talent Development Opportunities and Awareness of What is Required</p> | <p>Talent Development Planning & Expertise</p> |
| <p>5.5.4.1. A Need for Improved Coaching at Youth and</p> | |

| | |
|---|------------------------|
| <p>Senior Level</p> <p>5.5.4.2. Lack of Financial support a Barrier to Good Coaching</p> <p>5.5.4.3. There is a Need to Support Jordanian Coaches</p> <p>5.5.4.4. Opportunities Coaches Provide Can Make a Big Difference to Progress</p> | <p>Coach Education</p> |
|---|------------------------|

Table 5.2 Themes and general themes emerging from the study described in chapter 5.

5.5.1 Culture within Jordan

5.5.1.1 In general, there are low levels of support for football development as a profession

The participants outlined that they believe the support young people need most starting their journey to become a successful athlete in Jordan is missing. Only after athletes are successful are people happy to support, however at the beginning participants report that many keep their playing secret as it is generally frowned upon by family members. Football is not seen as having any potential as a career or profession, families and the wider community are focused on education as it is considered the traditional and only way to have a successful future.

“It is not very common in Jordan to have support from others. A player has to succeed first then he may get his family's support. Some players have to secretly train, I had to go out and train secretly. A lot of players started like that and in the end started supporting their families financially.” (P1)

“Of course people were telling me to stay focused with my school studies and, telling me football doesn't have a good future.” (P1)

“In the beginning when I was young, I used to go to the club on my own, it would take a lot of time from my day. When I had my final exams in school people would tell me to go study, sports won't feed you. The people in society would say that sports won't feed you, when people ask me about my job and say I am a play football player, they would say what you mean football player.” (P1)

“Considering the environment of Ma'an, I would say it was not that supported at all and does not have any future to provide financial source for living. The mean reasons of that

because society's view of sports that it is a defect (blemish culture) and there is no future and you will not have money to marred and look after your family." (P3)

Also, participants expressed the desire to change how football is viewed, for people and society in Jordan to appreciate better the benefits of playing football both for young people and adults.

"If I get chance to be in an effective position relevant to sport in Jordan, first, I will put things in place that could change the perspective of sport in Jordan for different age categories and improve their culture about by advertising the benefit of playing football which eliminate many possibilities of having various kind of diseases in the future." (P5)

5.5.1.2 Lack of support from educational institutions

Generally, participants highlighted that schools view TID in football and other sports negatively. Reflecting and reinforcing negatives views within the family, educational institutions as part of the community do not understand, and view negatively sports development, and as such offer only basic physical education programmes. Overall, the school environment was felt to be a hostile environment to sports development. Interviewees wanted to see government promoting a progressive physical education in schools including TID, especially as schools sports is where most player talent could be identified.

"The problem of schools must be addressed; schooling should be friendly to player's identification and development. The school environment in Jordan is hostile to sport development; pupils who take part in sports are seen as unserious by the teachers, instead of encouraging the players and support their commitment to sports development. In my opinion, schools are the main tributary for identified players because when they go to school, they are young. " (P3)

Generally, players interviewed described physical education in school as wholly inadequate and of low quality. Typical problems included; large class sizes, limited time dedicated to sports (45 minutes), lack of sports equipment and spaces, limited skills and experience of teaching staff with regards to talent identification and development. Frequently teaching staff and heads of school considered students involved in football as less serious about their studies and punished

them as a way of discouraging sports activity within the school environment. The following interview extracts demonstrate the opposition from schools towards participation in sports.

“The government must give attention to Physical Education (PE) classes at schools, when I was at schools no one give attention and we faced a lot of problem such as numbers of student in the class minimum were 30 students in each class and there is not enough space in playground as well as there is no tolls for exercise. Moreover, the PE teacher was not serious at all, he threw the ball to the playground and made two times to play. Other problem the class time was not enough it was 45 minutes. Also most of the time we did not have a PE class as the manager of the school changed it to mathematics, physics or English class.” (P4)

Furthermore, interviewees stated that universities put up barriers to sports participation and development. Lecturers and tutors showed little appreciation of students’ time and commitment to college sports, competing timetables existed which forced students to choose between abandoning their sports or delaying their studies and graduation. This is all in stark contrast to Europe or North America, where children’s participation in sport is often fully integrated with their education in terms of sports clubs both in and outside public and private schools and even provides them with much greater educational opportunities. More recently, FIFA supported by the Jordanian Royal office have provided some assistance to players at universities, but hostility and barriers remain the norm.

“When it comes to academic education, I would say that the universities were not very helpful at all, by being against this idea, not understanding that we sometime need to skip some classroom / lecture to train for an important game coming soon. As result of that I had to drop many semesters and finishing my bachelor’s degree took me six years and half, this situation I witness with many other players within my gender who took more than eight to nine years to finish their education. The issue was that many PhDs holders within the university community did not recognise the social contribution we trying to provide” (P6)

“In Europe the club take the players from when they are young, he learns and eats with them. Some players who are students and have a lot of classes have to go training after they finish classes which means sometimes they have to miss the morning training sessions, this puts pressure on the players to pick between their classes or the training. ” (P1)

“Not to forget the efforts put in place by the FIFA member and his Royal office to help players with universities but we always end up back those PhDs Doctors.” (P6)

5.5.1.3 Family is often against the pursuit of football for their children

The participants highlighted that Jordanian culture places great emphasis on respect for family and obedience to parents and because there is no government assistance children are economically dependent on their parents until they marry. Furthermore, the majority religion in Jordan, Islam, reinforces this culture of righteousness and obedience to parents equating respect for parents with respect for God.

At the same time, the participants report that parents have very little appreciation that their children might achieve success through high-level sports, therefore, participation in sport is almost universally discouraged. Socially there is no value attached to TID in sport for children or young people and no conception of sport offering any kind of career. It was highlighted that any young person who overcomes this must have great personal resilience and rely on their own belief in their athletic ability in the face of societal opposition. This is exemplified by the stories players tell of keeping their participation and training in sport a secret to avoid disapproval and even punishment from families.

“As you know in our Jordanian, Islamic, and Arabian culture a person lives with their parents until they become married. Unlike the other countries where a person at 16 years becomes independent. So you have to listen to them and always be agreed with their opinion.” (P1)

“Yes, you have to follow your parents' opinion. You may have to go and train secretly. This is a huge obstacle. In the gulf countries, the players have support from when they are young, because of their better financial circumstances. So when the parents see that you are supported they will be more convinced to support you. It would help if the young players received enough money to pay for their transportation to and from the club. If they don't have enough to pay for transportation or if their parents don't bring them to the club they cannot participate with the team and that way the young player will lose his talent and maybe even quite playing sports. Sometimes the father may want you to be a doctor or engineer, not a player.” (P1)

Additionally, the evidence suggests that athletes' families are a major obstacle to TID. Parents strongly oppose their children participating in sports and are more likely to punish children for being involved in sports than to support them. Other obstacles to participation in sports and TD are explored later in the chapter, here it is clear to state that lack of parental approval was a major barrier to Jordanian sports development. Going against parents' wishes has repercussions in all aspects of life, emotionally, financially, socially. Children disobeying parents and participating in sports will be cut off financially from support to their sports development but also in other areas of life. The quotes here highlight how the lack of parental approval for TD affects young people:

“At the beginning of my career in football specifically when my teacher advise me to go join a football club and before rise and shine in the game, my family was against that due to previous experience with my older brother who did join the same club earlier which was not successful that much and effect his grading in study as well. Also, my family were thinking about the competition between boys at the family like if I am going to join the club, they should consider sending my other brother which could a lot of financial pressure on them at that stage. Plus, they were worried about my future academic progression as I was always first or second in the honour list of my class students, furthermore, they did not foresee any economic benefit of joining this path due to their knowledge that will not provide me with much money for living later.”(P5)

“I would start with younger players as they might face a challenge that their families initially will not allow them to play or participate in proper football club team due to the fact there are no proper income would be generated from this field, however, this perspective has changed.”(P5)

5.5.1.4 There is even less support for females to pursue football

The interviewees outlined that football as an activity for young females is wholly denied culturally and is viewed as bringing shame upon families. As with boys, they view it as being no good for a daughter's future, but moreover also damaging their chances to marry as it is not a befitting activity for females, football is seen as only for males. Female players also kept their participation secret, often they had greater difficulties with transport costs, as most cities did not

have a female team to join. There is a substantial level of suffering expressed here by the experiences of female players.

“It also regarding blemish culture you will never find a girl play football or any other sport in my city because people see it as a shame and the girls are afraid they will not have good future such as got marred as well as her family will not support her and they objection to play football. Anyway society’s view of girls playing football is bad in all Jordan, but in my city is stricter.” (P3)

“Some girls would not tell their parents they are attending trainings or receiving salaries/rewards. And we used to face challenging because of the cultural background. We used to hear abusive comments, but we used to take this as a joke.” (P2)

“I have noticed that in many occasional that parents are against their girls when it comes to playing football as they see it a boy’s game, therefore, many of them used to come for a game without telling her family plus suffering to pay the transportation cost from her saving rather than getting her family support to cover that. Also, many other have left the school to play this game.” (P6)

“You know, when a girl grows up, she becomes under strict scrutiny as she gets more self-aware. So, when I was in grade 7, my dad started to refuse me taking part in games on streets.” (P2).

“In general football is a popular game and ranked as number one in Jordan, however, when it comes to woman football players, we have been criticized a lot as if it not meant to be a game that ladies should participate in and they should be always at home and there place not in football stadium. But I would say there are little improvement for society perspective which I can say its only in the Capital Amman and there are many places from Jordan society perspective have not change at all. A girl player in Jordan do suffer a lot from bad perspective and verbal responses from their society as we must play with other boys’ team sometime due to lack of resources and facilities available for woman but with determination, I would say we overcome that but it still there in many other cities of Jordan which do not permit that for woman.” (P2)

There seems to be adverse social views of female footballer in all areas of society in Jordan. The media and journalists reinforce these negative views portraying female players as transgressing society, religion and culture and degrading and intruding greatly on the personal lives of female players. Game spectators often shout sexist insults at females and women are discouraged from participating even as spectators.

“Socially, we had a very difficult time to introduce the participation of woman in football game either in being as player or an audience and many journalists were biased since they

tried to translate the society point of view as holy book or a line that should not be crossed and we really noticed that from their behaviour in ignorance and not provide us with support that we really need which make us feel helpless.” (P6)

“The journalists used to reflect their view against women football (because of cultural and religious purposes). So, the public has become negatively charged against it. But this became irritating when we realised that some journalists would come just to drop the question about what I challenges I faced because I’m a female. Everything question was articulated around the same point (the gender). ”(P2)

“But here I should point out that the audience who attend the matches (female match) are not helping with their mocking comments. That’s also why less females attend the matches. Nowadays, these are changing a bit, especially after the achievements by the women teams which surpassed the men’s team. After this, things changed, and we started to hear criticism based on the performance rather than the appearance, clothing or gender. ” (P2)

Participants outlined that Federation Internationale de Football Association (FIFA) contributed to the discrimination against women players in Jordan when it banned the wearing of the scarf (Hijab) while playing. The Jordan national women's team was shocked by this ban which forced many women players to resign from playing football because of FAFA’s lack of consideration to other cultures and religions. The players of the women national team were united in their appreciation of the president of the federation, Prince Ali for his support to women players and backing them while all of Jordanian society was against them.

“In the Arab region this decision (cannot play with Hijab (Scarf)) from the Asian Union was a shock where we are trying to attract new players and skills to this game, and we felt really down for that reason as we do have a lot of expert players who wear that. After that, His Royal Highness got involved and reached out to FIFA and then a new decision was made which allowed girls to play with their Hijab (Scarf). ” (P2)

“When we start playing football as woman there was no issue with that as we have a lot of girls who play while wearing Hijab (Scarf) and that was considered a normal thing, later on FAFA announced that you cannot play with Hijab (Scarf) as they do have lack of understanding to other countries cultures which could lead to smashing the current and future players passion or dream to play football and you would lose a lot of potential expertise of players around different countries.” (P6)

“Recently, after His Royal Highness Prince Ali Bin Al Hussein Bin Talal became part of FIFA, we noticed a significant improvement in the process and quality of training which added a successful key support to us as woman football players and he helped with

changing the parents and society point of view to those girls who are part of the national football team, additionally he provides us with coaches and follow up on the improvement process.” (P6)

5.5.1.5 However, if family support is available, it can make a big difference

In contrast, the participants reported a minority group of families who did allow and even encourage their children in sports, perhaps because of a passion for sport in the family, or even a recognition that it is a route to a career. These parents, as the quotes here show, helped their children to do sports and understood the importance of sports and offering financial, emotional and moral support. Additionally, the evidence indicates that players were training weekly or daily with their family, cousins and friends. Players stated that emotional and financial help were the most important features of their success and development in football, especially in the beginning, where financial support plays a very large role. The participants themselves, generally believed such support made the difference between success and failure.

“I would like to say that family support in this path is a key player to the process and I was very lucky that my father gives me the biggest support that I need and not to forget that my whole family into sport and do many exercises plus that my brother does play football too.” (P6)

“My family provide me with huge amount of support financial and emotionally. Addition on that my friends provided me with their support by pushing me to go for trainings and inspire the talent I have. I do not want to forget my neighbours and society who have supported my once they get to know that I have joined a football club.” (P5)

“When I started playing, I could feel that I have the desire and passion to the game. Generally, we are a sporty family, my mother was, and athletics player and my dad played all kinds of sports, especially football, table tennis and swimming. We [me and my siblings] are 5 girls and 8 boys we all were into sport. So, I started to go to the Sport City and there, I’d play with my uncles, cousins. But later I felt that I’m tightly bound to this, so I started to turn away from this and every time I’d hear the whistle for street games, I’d run and join. My dad used to reprimand me for this, but I never obeyed. Later, my uncle, a member at Amman Club, came in and told me that there will be a woman football team at Amman Club. So, my sister and I went there.” (P2)

“Every Friday, we would go swimming, play football, apart from jogging (running). I felt that I’m more inclined to athletics and swimming. But my dad used to focus on football.

So, he used to give extra private training. We would organise street leagues (street 2 vs street 3, etc) and every Friday we would have a league-like games in a playground.” (P2).

“Another reason was that I joined the national teams when I was young I was able to get my father's support early, not all the other players had their family supporting them. My determination to become something big helped me to reach where I am today.” (P1)

Some participants identified their parents as being against them playing football in the beginning but subsequently changing their mind possibly because they could not afford to continue to send their children to school. In this way their increased participation in sports coincided with their withdrawal from engagement in the educational system suggesting that these families did view sport development as having the potential to produce financial rewards. There may have been the idea that funding from either from clubs or the Jordan football association could also support their continued education.

“My father became convinced with what I was doing when he saw that there are financial benefits and when I started travelling with the team.” (P1).

“When we were young we didn't know yet those older players were making a lot of money. My father started to support me when I joined the national team, especially when I started travelling with them.” (P1).

5.5.1.6 Players who did get support from a parent, teacher or coach are lucky, and very grateful

The importance of support from teachers, coaches and parents was seen as vital by the participants and those who received it felt lucky and grateful because it is not the norm in Jordan.

A coach can be a vital component in collaborating with all involved. In the Jordanian context, coaches and teachers appreciate the levels of disapproval and lack of support from the family and community, so nurture close relationships with their player to provide encouragement and motivation which is lacking. Here are some opinions on the relationship between the teachers, coaches and their players highlighting these points:

“Based on my experience, the school infrastructure and logistic available at their site where very limited and not proper one for training or raising a professional player, despite the fact I gladly did, however, I would not forget my coach at school (sport Teacher) who had a very detailed knowledge about several sport games such as basketball, tennis table, volleyball and football. When he does saw that I am a talented player he helps me out to work on my talent and develop that through his instructions and trainings. Also, I really admit this was due to his personal efforts and passion. ” (P5)

“My school asked me to represent them in all sports. We had King Abdullah’s prize for sports that need endurance, etc. I then started to achieve gold medals Javelin throw, 100 metres race, etc. So, I had the feeling that I’m fit for all the sports. At schools’ championships, I would win the basketball competitions, the headmistress used to reward me by allowing me to help myself at the schools’ canteen [without paying]. But this had pros and cons. Because this prevented me from attending classes so that I was not academically qualified. I barely was able to read and write when I was at high school. I used to train other girls’ team, attend any TV coverage for schools’ activities, etc.” (P2).

“Determination to be and to success so we can participate in the world cup one day. Addition on that the help that we got from our families and His Royal Highness Prince. ” (P6)

5.5.1.7 Given this general lack of support for football pursuits, self-motivation and confidence are very important factors for successful development.

Factors which emerged as important for progress in TID among Jordanian players were self-belief, passion and love for football. Great passion was expressed for football and a desire to reach elite high levels of performance in their sport. Their love for football drove their willingness to endure neglect and hostility from society. Fundamentally, all players expressed high levels of self-belief which was seen as essential if no one else believed in their ability, for athletes to traverse the very difficult and capricious journey to success in TID. Self-belief made them ready to take on all barriers and struggles in a society apathetic to their talent in sports. Participants exhibited complete faith in their ability to attain top level athletic performance. showing awareness of their strengths and weaknesses and a desire to work on both as some of the quotes here attest.

“The determination was a key supported thing in my life as I always wanted to be a football player for the passion I have for this game.” (P5)

“I always believe that the player himself is the key player in this process including his passion, life experience, personality, following a diet system etc. would be a useful factor in his development. The coach does play a secondary role in this process where the basic does lay on the player himself as I mentioned and his determination to be.” (P4)

“Actually, I love football when I was 5 years old my dream was to be a footballer and I always believed in myself and that I had the discipline and eagerness to become someday a professional. But everybody is against me, even my friends. They say what you benefited from football. Just a few player were good enough to play outside of Jordan and earn enough money, if you stay in Jordan it will be difficult to be financially well. The players should have better income.” (P1)

“Honestly, I have work on myself very well in order distinguish from other by giving up on many things that I like in my life, that I have watched and read as many as I could to improve and work on myself, also I would say that I was lucky compared to other players who did not give attention to training and their development.” (P4)

“Addition on that the amount of training that I put into a place was significant and key to success by getting in touch with private trainer, morning and evening intense training due to the passion I have for the game and I really wanted to be something / figure in the football field in Jordan plus my determinations....Not to forget that it is my dream from the beginning and I do have a passion to play this game and be a contributable member in it.” (P6)

5.5.2 Lack of Professionalism and Resource within Jordanian Football Structures

5.5.2.1 Lack of Professionalism, Strategic Planning and Organisation

The interviewees outlined that professionalism in the game of football in Jordan faces many obstacles. It therefore seems necessary to develop levels of professionalism in players, club and the sport generally. It is essential in terms of the financial issues involved in generating money for clubs and players to gain experience and skills in their sport. However, in Jordan professionalism in sport is often only a paper exercise, but lacking in reality. Players suggested that professional standards do not exist in Jordan, often describing it as ‘third world’.

“Initially Professionalism was not funded or provided with right resources and lay a huge pressure on the player, as she must work, study, cover her expenses and participate in the

professionalism program which require high level of practice and focus on the game. ” (P6)

“Furthermore, I went for professionalism journey during a certain period that I spent in Abu Dhabi, Lebanon and Denmark which enhance my professionalism and skills. Additionally, I always kept training and that can be noticed from my schedules which show that I never skip a training and maintain a healthy living style and as result I remain into the game till the age of 32 years old. However, I saw the huge different in professionalism between Jordan and other countries which I had played. ” (P6)

“There is no professional mentality with the players, coaches, or administration. For example if a player participates with the national teams and gets paid 20 or 30 thousand, his level goes down, he becomes less interested in improving his performance level and starts being involved with other activities. ” (P1)

“We in Jordan are considered to be third world when it comes to sports, we are way behind. We don’t have true sport professionalism. Professionalism in sports should be applied in all its aspects. Here in Jordan clubs are not allowed to play in the Asian clubs cup, only one team is allowed to qualify to participate in the Asian clubs league and they might even not qualify, because they don't fulfil the simple requirement of having their own stadium. This is an obstacle for Jordanian players because they can't get much international experience since they don't get many opportunities to play with many foreign teams. This makes it very difficult for players in Jordan to market themselves to Europe. Even when players go to Saudi Arabia they don’t play in the professional league. ” (P1)

The absence of strategic planning and organisation were significant obstacles to player development making it more likely that much great prospective talent is never realised. Every participant noted specific organisational obstacles to TID in football in the Jordan. For example, there is no support to TD in sports, high level players felt that the government, especially, did not offer appropriate attention to sport development. In this way, TD in sports is undervalued across society. Additionally, governing bodies in sport always use German or British models in Jordan, which demonstrates a failure in strategic and organisational planning as any European country model cannot successfully be imported and imposed in Jordan because of the difference in culture and mentality as an Islamic Arab country. Evidence showed that much prospective talent loses trust in the system. According to participants, there was little or no strategic and organisational planning and decision makers in Jordan lacked experience, knowledge and

awareness of football development. Decision makers failed to make either short or long-term plans and misunderstood competitive sports with a win-lose mentality that did not accept losing. Top level football players saw an overall lack of maturity in strategic planning and organisation in Jordan.

“I know for sure that I can't always apply a British model or German model of sports in Jordan country because of the difference in culture, and the mentality. We have an Islamic, Arab, Jordanian culture. ” (P1)

“Honestly the football development environment which exist till the end of 2012, was traditional one without any strategic plans, however, when His Royal Prince Ali Bin Al Hussein promising academy started, there was a potential about to develop and improve football in Jordan, unfortunately this did not work out due to lack in planning, execution of long term strategic, which turn to a wrong direction aiming to gain a financial/profitable outcome from these academies resulting an impact on the players performance on short and long term. Addition on that the decision maker in our county does not have experience, knowledge or awareness about the football development. ” (P5)

“If you win, you are the best player in Jordan .If you lose, you are a bad player and people begin giving you a hard time. If you win you don't get any financial support, if you lose, you might lose some money from your salary. During one of the seasons my club we were close to being dropped from the professional league. The club didn't have money to pay us and we were playing just for our names. This season we did well and ended with a good ranking. They aren't very mature from a football perspective. ” (P1)

“In term of administrative, I would say that we are at the first rank compared to any other country in the Arab region as we have started with establishment processes away earlier than them due to their society perspective which got eliminated in Jordan at earlier stage, however, compare to Asia, we are away far than them as they have started earlier than Jordan and you can notice that from their achievement and progression for example in Asia now team put in place a structure or a vision for the next fifteen years but in Jordan we still did not pass a period of fifteen year in term of woman football teams. We lack a base structure to embrace from it and to have more interaction session between teams and club nationally and internationally plus these should be associated with tangible rewards to encourage our new generation players. Attract some internationally player to come and player with our teams so you can learn from them and improve our player skills and expertise rather than having the same player practicing together from the beginning till the retirement with no proper enhancement. Based on my experience that we used to have players on board for short period of time let us say for a month and then they go back home due to shortage financial resources and fund which result that we lost a significant number of good quality players, so in general lack of continuously training for the players .” (P6)

5.5.2.2 Poor Infrastructure

The participants highlighted that they felt infrastructure in TID is key and Jordanian football has a very limited and low quality sports infrastructure. This leads to a weakening of Jordanian football for the federation, clubs, players and the system overall. Players highlighted that most professional clubs have no training ground and they are forced to incur financial expense when securing a training ground. The absence of sponsors and supporters weakens the clubs' coffers and there is little strategy or action to obtain external income. Furthermore, clubs lack facilities such as gyms, swimming pools, and lecture halls.

“The clubs here just have fields, bad fields. Clubs should have gyms, swimming pools, and sand areas for preparation and Lecture halls to help change the mentality of young players.” (P1)

“Addition on that lack of financial fund, transportation and poor level of infrastructure were one of the difficulties that we have faced during our journey.” (P6)

“We need to have better infrastructure, at least every few clubs should have one natural field for training.” (P1)

No Jordanian club has a training ground with natural grass, and all players train on artificial pitches. These artificial pitches cause many injuries and produces poorer performance in official matches due to the difference in the playing field in the official match. The artificial pitch plays faster and does not effectively train the skills of players. This all has a negative impact on players' muscles and joints, shortening the future of their career and therefore the amount of high level talent in the sport in Jordan.

“The lack of financial resources and availability of proper infrastructure of a stadium are a key factor such as most of these academies use synthetic grass which impact these kids muscles and joints resulting that they would have short future in the game in long run due to the amount of injures it could happen to them during their training time or the transition process if the start play on natural grass and that does affect the accomplishment of sport in Jordan.” (P5)

“There is a big difference between the fields we train on and the official game fields that have natural grass. This difference effects how we handle the ball .There are no training fields that have official football field standards .It is very rare that we get to use Amman international stadium .We can use it if we have Asian games. You can't train in an Amman international stadium because there are only three official fields and there are many clubs that want to use them. ” (P1)

“The infrastructure of stadium on Jordan playground is made-up and not natural and that represent a key risk would impair or affect players skills on the long run as playing on made-up playground is easier than grassy playground which we can notice that a player is getting tired so fast when they play on naturally playground and that due to lack of proper facilities and infrastructure for trainings. Addition on that, this would result more possibilities for injures. ” (P4)

5.5.2.3 Not enough competition, but It is Changing

Another challenge highlighted by the participants is the limited season. Internationally, the average number of matches per season for a professional football player is forty to fifty. Jordanian players reported playing 22 games per season in leagues with 11 clubs. It was even worse for female players who were playing 8 games per season. Overall, the lack of competition weakens TID and TD.

“There is another challenge we faced in Jordan which is there are not enough competitions even in national team or in league games in during the season, Actually in Jordanian Pro League we have just 12 clubs. ” (P1)

“We have to bring teams from abroad so that we can practices. At Amman club, we used to have just 8 games in total for the whole year (home and away matches) and that’s it. After that you go with the national team and you start to hold friendly games abroad or rarely you can bring a team to Jordan. Unfortunately, there are not enough international competitions that can help improve the players performance, Now we play a total of 14 games per season. But now it is different. Now there are some strong teams that you can compete with and draw tactics. One of the reasons there was a split in the teams into A and B was a game that ended 48-0 which indicated that there was something wrong and there the teams were not at the same level of competencies. But now this has changed. ” (P2)

“There was no interest from the beginning and not continuously into the training as we used to train for a month or two and then wait for a year to reunion again for trainings, also there was lack of competitions and that most of the matches we played were friendly one and the team did not have the inspiration to win since it is just a friendly one and not competition or a champion. Thankfully, we have started since 2004 with four teams and now I can see huge improvement when I see that we have seven professionalism teams

and sixteen team with age under sixteen years old and that represent a wonderful achievement so far. ” (P6)

5.5.2.4 Lack of management

5.5.2.4.1. Lack of high quality administrator expertise

From the perspective of players, they recounted evidence of poor practice and malpractices in the management of sports in Jordan. Players communicated their disappointment in club and association administrators, who they stated were not in their positions due to knowledge and competence. They stated that people with no background in sports management and administration were appointed due to their connections to government or a manager might appoint his son to the administration. Participants felt that the management of sports in Jordan was politicised and not based on competencies, skills or experience, thus, sports administration and management in Jordan is incompetent. Participants argued strongly for a real change so that skilled and experienced professional sports administrators be hired to run government sports development institutions.

“As for the administration systems there are some problem .At some clubs the manager hands over the administration to his son. There are no real elections or board members. But for example Al-Wehdat club have real elections, that's why you will find that the manager really works hard, if he doesn't work well he will leave next year, that's why Al-Wehdat have a lot of achievements and have developed a professional mentality. They also have a lot of members. But in some other clubs the club management is inherited to the son of the current manager. ” (P1)

“During 2011, I was forced to sign a professionalism contract with a Club for a period of five years, but I refuse as I wish to sign only for three years only and as result of that my salary was cut down to put more pressure on by reducing my salary from JD 500 to JD 150 despite the fact, I was a key player in the team. Which I felt it was unprofessional since the management running the club does not have any experience in playing and their existence linked with the money they had or give to the club. ” (P5)

“If I get chance to be in an effective position relevant to sport in Jordan, I will improve the planning processes for sport in Jordan to be consistent and suitable for the long run by having the right expertise in the right position either in planning or execution or decision

making which require these to have practical experience and knowledge about sport in general and specifically in football.” (P5)

“I do not think we have a successful clubs management, as they require significant improvement, not to forget that the professionalism process in Jordan was poor and significantly affect the progression of player. The management have a lot of deficiency as you can notice that from the player behaviour and movement/jumping from a club to another. Management unable to secure a sponsorship or do marketing for the club teams which require inspiration and skills. Moreover, If I get a chance to be in an effective position in Jordanian sport First, I will make sure that no one getting involved as part of Jordanian FIFA unless he is athlete person and does have significant amount of knowledge and experience about sport or football rather than having a negative employee who does know nothing about what he is doing.” (P4)

5.5.2.4.2 Corruption – unequal treatment of players & a pressure to ‘tow the line’

The poor practices and malpractice in the administration and management of sports departments/agencies was highlighted to feed directly into a wide range of activities which may be defined as corruption. Players reported a culture of corruption and mismanagement of public funds in the sports sector in Jordan which goes hand in hand with a lack of fairness and merit. Young players in development face many obstacles due to this, for instance, decisions on selection can be based on who the footballer knows and not on their ability. Reportedly, several footballers have been recruited into the national teams based on their connections within the system, whilst talented players without connections are not selected. Coaches have chosen their sons to play or because they know the players’ parents and have a relationship with the family. Again, at the national level selection by administrators may be corrupted by inducements and selection based on merit is adhered to, adding to mistrust and dissatisfaction in the sport.

“I started playing football and continued, at sometimes I wanted to stop because I felt that the players were not treated equally, some there is no justice especially in Jordan. There is corruption, special interests, and there is special treatment for certain people. For example, I used to be a starter in the youth national team, and played in the Asian cup, we faced big teams, and we were ounce one game away from reaching the world cup, when I came back to Jordan to play for my club, even though there was a vacancy in my position, I was surprised that my coach didn’t let play at all. Because the coach liked a certain player, even though this player had never played for any national team.” (P1).

“There are players who don’t deserve to play and took the positions of better players just because his father used to come to the club when he was young, or was in the club administration. Sometime people who work in the national football association want their sons to play in the team, every former player wants his son to be a player and the coach can't say no or else he would lose his job .They will say the coach is weak or you don't deserve this job. Moreover, I believe the corruption problem is the Sports system in Jordan, if coaches had the choice to pick players based on the talents, teams would be better, but sometime the coach is controlled. If someone in the administration wants his son to play the coach can't say no.” P1

“The problem is we started to focus more of the financial aspect of football. So, the sport has become a business and players are looked at as source of money. Also, in terms of selection there are some corruption. Sometimes this selection is based on nice shoot-even if it lacks technique. Sometime the selection is based on connections (to select friends' children).” (P2)

“My first impression was not that great about the coaches in the Club, as they used to keep in as spare player and not giving any attention to me or my potential due to corruption tor connection with other players family member for their political positions.” (P5)

“When I was with the 14 years and 16 years old team we had a coach who could recognize the good players. He developed players and helped them reach the national teams. He had a strong personality and didn’t listen to the administration, he would do what was right, and in the end the administration didn’t want this coach anymore and let him leave. The administration sometime pressures the coach to let someone play, if a player's relationship with the administration is bad he won't play. The player should play with the team if he deserve to and what he gives the team good talent. I personally, had faced problems from the administration.” (P1).

5.5.2.5 Lack of Financial Incentive or Support for Players

Participants viewed lack of funding as the number one obstacle to talent identification and development in sports in Jordan and linked this to the poorly performing national economy. Players were frequently not paid their salary for months at a time and in the end often were never paid. Participants complained that management do not invest in players with any long term view as being the future of the club or national sport, which contrasted with international standards.

“One of the problems we face is financial challenges. The contract the get are not so big, most players don’t only work as players and they have other jobs because the football contract income alone is not enough.so the player would play football as a part-time job not full-time. The students also who have a lot of classes and have to train or play official games, can't focus just on playing as a fulltime activity they also need to focus on their

classes. The money that I earn as a player during my golden age as a player between 20 and 30 years old isn't enough to save from and open my own business. (P1).

“Addition on that our players do not get treated as professionalism at all, for example if you ask a player when the last time you took your salary, he will say three or four months ago which I believe is not a way to deal with professionalism players. Also, many clubs team sign with a player as professionalism where it's written in his or her contract a certain number as monthly salary but it ends up this not received. (P6)

Players sometimes aren't paid on time; their salaries are one or two months. I still need 4 months of my salary from the last season, because the association was late in paying the clubs. (P1)

“First, I would say the lack of financial support is a key challenge that stands in the face of the development processes for young age players as the club does not provide any support such as transportation, salary or contribution to inspire their ambition for the game and not to forget in order to build a strong team you must give huge attention to young players as they will be your future on the long run because when we get a foreigner player in contract form we need to bear in mind that player might leave us at the end of his contract but having young players who you trained from day one will help you out to create a loyal key player who will stand with the club no matter what would happen. For example, Messi did start as junior with Barcelona Academy and now he is the most famous player in the first team which proves this fact. (P4)

Players also felt that personal finances are an important issue and they emphasised a lack of financial support making them uncertain about their commitment to their own sports development future. Often players focused on their university studies as they saw no real career opportunities as football players. They also feared injuries ending a career before it starts with no insurance to cover injuries or guarantee your own financial security. The majority of players only felt able to commit to football part time.

“One of the difficulties that I face was completing my master and PhD degrees and I got worried that might stop me from achieving my dream. However, I managed to keep up with both studying and playing but it was difficult to balance between studying and practicing specially when my coach saw a potential in me. Also, due to study load I had to face huge physical fatigue which was noticed by the coach as I used to sleep in the bus on my way to training and I seem tired. As a result of that the coach chose to come forward and told me at some point I have to choose either playing or studying as he noticed my fatigue a lot and I might lose cautious during a match and that could affect the club significantly but I explain to him that I have a dream to achieve in my life he did respect that but kept in at spare list for a while and that really made it hard for me to come back on track to prove myself to him again. (P5)

“Deep down I never think to quite or stop playing. Additional on that I would emphasise that the financial situation is the main difficulty that player may face and fear from the injuries and that if you took playing as career you might not have an insurance to cover your injuries or provide you a financial resource for living. Also, most of the player are working in different fields and at the same time playing which impact their abilities significantly.” (P3)

“I used to laugh about this when we remember it. I signed the paperwork for amateur (it was pink in colour and we used to call it the shroud/coffin of rosy paper). As I signed this, there was no way to escape the binding terms of it. So, once a girl escapes the cultural and family challenge, she gets trapped in the coach challenge. We would accept and find anything as a reward. One time we were rewarded by attending a workshop in Germany (cultural exchange programme). We took the opportunity to learn. Other challenges we used to face is when we need to support ourselves for the life essentials. So, the financial issue was one of the challenges as there was not enough funds for everything.” (P2)

5.5.2.6 Lack of support for injuries and recovery

The inadequacies in the sports development system in Jordan are highlighted by the neglect of players facing injury, recovery and rehabilitation. The opportunity to effectively recover and return to player is significantly reduced by lack of support there dropping out of sport after injury is the norm, so injury is a major preoccupation for players. There is little or no proper rehabilitation infrastructure and sports medicine in general is very limited, following serious injury the only hope is to get support outside of Jordan.

“Injures is one of the key difficulties that a player would face considering that most of the clubs does not have an official doctors or medical stuff on their ground.” (P4)

“The greatest challenge I have had to overcome was injury. Injuries are the most dangerous enemies to player's career and obsessed with injury’. Injury can happen anywhere, it could happen in training, at competition, even at home. And when it happens, the career of the player will be put on hold for the entire period, and that is why many players never made a full recovery. While injured, depending on the severity of the injury, may you quit playing due to injury or you will not be able to train or take part in any competition. ” (P3)

“One of the obstacles for players is that when you are injured nobody looks at you, you don't receive proper attention. When you return from the injury you don't receive proper rehabilitation training. There isn't enough money to treat the player's injury. We don't have strong sports medicine; mostly we are checked from general physicians. Some

players who have heavy injuries are sent to Aspire Academy to get treatment, especially the national team players. There is sports medicine but it's not very strong. ” (P1)

Jordanian footballers lack medical insurance and injuries are a heavy financial burden on clubs, whose already highlighted mismanagement means they evade responsibility for treatment and recovery. For instance, clubs would not support a player with an injury to their anterior cruciate ligament (ACL), as they know it will cost them a lot of money.

“There is no medical insurance for any player that provided in Jordan and some injuries could be critical and require fast actions to be taken rather than further delay as the clubs trying to reach out to the Authority for their approval or support to cover this. This could significantly affect my recovery from the injuries and lead to an impact to my talent. ” (P5)

“The worst part was that the system does not care about injured players because there is no any support or insurance to cover you injury. They believe it is the responsibility of athletes to take care of their injuries. So, you are left alone to deal with the injury for example, if you do not have health insurance and you get an ACL injury they will not help you because the club will not have money to cover this injury. ” (P3)

5.5.2.7 Need for teams of coaches and specialists to support players

Participants outlined that advanced sports development in clubs and institutions calls for specialised professionals such as food specialists, fitness trainers, physiotherapists. These do not exist in Jordanian clubs and most appear to be unaware even of the need for them due to mismanagement. Interviewed players highlighted how important food specialists and fitness trainers are not only in improving performance but in being able to protect players from injuries.

“Been trained by different coaches did help me to firm my skills and abilities in a different way, specially that we had to big name who worked as coach for Al Faysali Football Team. As each coach would have various techniques or abilities to spot and analyse the position of each player. Because the lack and weakness of coaches in general and there is no food specialist most of the player does have lack of knowledge about their diet system and quantity of water they should drink during their training as this might

increase the possibilities of injury due to the nature of playground they are playing on. ” (P4)

“I never had a physical examination at the club level, but when you play for the national team they may have physical examinations.” (P1).

“Sometimes you are checked by people how don’t have a degree, and who have a course in physical therapy. The club doesn’t really support enough. If you are able to return to play by yourself they might support you. If they really need the player they support him. ” (P1)

“Furthermore, we used to feel insult when we were given the uniform which was for men and not for woman, that took fourteen years of following up and insisting to get proper uniform. An example for lack of financial fund, the number of cadres we used to have, back in the day it used to be only the main coach and his assistant but now it is different as we do have team of cadre which contain of main coach, assistant, administrator, medical team etc. which made feel like we are in a proper football team. ” (P6)

Much importance is placed by participants on psychological preparation as an integral part of a players overall sports development preparation and it should not be lacking from their training programs. Participants reported that there is no such thing as a ‘psychological coach’ in Jordan, so, the captain or the coach must stand in as the ad hoc psychologist for the team. Players believed that a psychologist with the team could help resolve many of the problems which players regularly experience.

“In all the teams that I played with there is no psychiatrist, physiologist or mechanics trainer. However, of course if they were available they would help the players. ” (P1)

“The problem is we do not have psychological coaches in all Jordan and not having a psychological coach puts burdens on the team’s captain. For instance, we don’t have a psychological coach in our club. So, I have to be a psychological coach, a friend and a carer for the players. I do this because I understand their mentalities and their emotions which I passed through in the past, so I need to deal with this also not having psychologically coaches puts more pressure on the coach. In this case, the coach will not only focus on football, but rather he would check if they eat, sleep well whether they show signs of stress or so. Therefore, the psychological coach helps put the players in the atmosphere of football even without playing. There are problems that players may face and hence they need someone to contain them and absorb their anger. I notice that playing football help cooling me down. Sometimes, when I don’t have training, I would go to gym to discharge the extra loads so that I can keep calm. That’s why now you can only get 11 out thousands of players who are qualified for professional playing. Those 11 are those who worked on themselves and improved themselves. So back to the

importance of the psychological coaches, they are important for putting the players in the game mode 100 %. Also, psychological coaches can deal with social issues like those players who are afraid of their families. The psychological coach can deal with this and with the parents as well. In our club the administrative team is friends with the parents so that they can trust him and allow their daughters to stay in the club. I believe we miss a psychological coaching in Jordan and we must to have it for future. ” (P2)

“The coach might support you if he sees that you are a key player and leader on the ground, nevertheless he will not consider the psychologically side or any kind of problem that a player face and all lay on the player personality to bear the amount of pressure on himself. Addition on that the combination of the Jordanian society does not accept the concept of psychology at all. ” (P5)

“I would say that the psychology factor is one of the important factors to take care of when it comes to a player considering the amount of pressure that we face either from audience or coach and club management who always looking forward to a game winning and fabulous playing, so in case that a player fails to do so, then the amount of pressure and critics he would receive going to be a lot for herself to take.”(P6)

5.5.3 Talent Development Planning & Expertise

5.5.3.1 Low level of active talent development for young players

As has been highlighted, there is an overall ignorance and/or antipathy to talent identification and development in Jordan. As discussed cultural prejudice and mismanagement and low competencies in sports administration and management from the government down severely limit sports development opportunities for football players in Jordan. The aforementioned lack of facilities in communities and schools, family refusal to allow their children to participate in sports, poor implementation of sports development policies of government all mean there are no organised sports in communities. Therefore talent identification efforts in many local communities are almost impossible to implement even if the will and infrastructure existed. The participants outline that there are no clear systems for TI and TD and for players stated that a system of TI and TD only exists on paper.

“I would say there are system to develop talent in Jordan, but unfortunately its only on paper and there are a lot of limitations that stopped the process of making that a

successful system due to lack of guidance and financial support which I notice that affecting many key player that I met in the age of thirteen years old and then when see her again you get surprised is that really the same player I witnessed before which is a result of not following the instruction issued by the Jordanian FIFA Union. ” (P6)

“There is no specific way for choosing players that participate. If the coaches see that you have talent you can play, but they don’t work on developing players, to be honest in Jordan we didn’t reach the level of developing players. ” (P1).

“As for school sports I the Aljazeera club scouts passed by and saw me, nobody supported me and my father was not a football player .If it wasn’t for the scouts I would still be playing in the streets.” (P1).

“The main factor that the Jordanian football lack the proper structure for developments, we should have strong academy that take the responsibilities to train and develop the skills of young team player and avoid been bias when they are deciding as that should be in the benefit of club always. ” (P4)

Given the shortfall of sports development in Jordan participants also revealed that young players are completely missed at an early age. Internationally, players start training aged 7 but in Jordan football players this only begins at age 13 already losing 5 years of training and development. Players highlighted in their interviews how this leaves a permanent gap in their future development opportunities of players.

“Addition on that, the Jordanian structure does not have any academy to take care of players from the age of 7 to 15 years and getting a player after the age of 15 years old would result significant limitations due to late involving in this game. ” (P4)

“one of the issues we do have that in Jordan coaches start with player in the age of fourteen where we should start away earlier than that to build his or her basic skills and techniques which hard to build in a later stage.” (P6)

“In the Gulf countries the player from when they are young the play on natural grass fields, they eat well, and are provided with good coaches .We should learn from the gulf countries. Take a look at Qatar they won the Asian cup, they have a coach who has been with the team for 12 years, he developed players from when they are young, and now has a generation of talented players. ” (P1)

5.5.3.2 Lack of support for transition to adult football

The transition from youth to adult play is very important in the development of a player and there were frequent reports of these transitions being poor. They depend on ad hoc support from

older players and there is no system in place nor any specific professional support or programmes (e.g. a sports psychologist). The quote here expresses a lack of support for transition to adult football.

“Playing with my first club, was a big step for me, I went from playing in the streets to professional playing, and also another step for me especially was when I played for the national team and having to represent my country in international competitions. When I left the younger teams at my club and joined my club's first team, I was with older teammates. The young players wouldn't get much playing time. The priority for playing time would be for the older players, a young player would have to get wait until he become older to be considered to be a big player, but by that time his playing level would go down. and younger players are less respected. When you join the first team, you enter a new environment, if you didn't have an older player to support you will, and help you enter the team mood and spirit. Sometimes we find this help sometime we don't. Without it you don't feel comfortable and your playing level goes down from fear with playing with the older players. Some teams don't know how to merge players together. The younger players sometimes think the older player that play in their position and how they will get a chance to play. They don't know how remove this fear.” (P1).

5.5.3.3 A need to develop talent development opportunities and awareness of what is required

Participants offered several examples of improvements needed for young players to be able to develop effectively, including more matches, better partnerships with sport academies and more support from the Jordanian Football Association

“See the first thing we need to do for the Jordanian football is to raise the awareness of coaches about the different age ranges and what each age range needs.” (P2)

“If I get a chance to be in an effective position in Jordanian sport, I will focus more the younger players as they are going to be future for the first club and if we build strong young player they will be able to leave an imprint in the Jordanian sport history. Addition on that, I will focus on having more matches between the younger player to enhance their skills and abilities to professionalism level.” (P4)

“Moreover the football association should make partnerships with the sports academies, to look for talented players that are good enough for clubs and the national team. Organize a league for the academies.” (P1)

Often talented players were not identified because the scouting systems only cover the big cities (Amman) in Jordan. A more widespread scouting system would assist talent identification and development.

“The scouts from Al Jazeera team saw my skills when I was young, other players didn’t have this opportunity. Also the association should start training coaches to scout for young talents outside Amman, in Amman everything is available.” (P1)

Players commonly viewed schools as being in need of greater support from government to help talent development in players. One participant suggested establishing sport schools for players and to encourage more tournaments between schools and cities. Players saw the need for an expansion of government support for schools and universities and the Jordanian Football Association.

“If I get a chance to be in an effective position in sport, the most important decision I would make will be establishing sport schools for player and put some pressure on the governmental schools with help of Education Ministry in order to focus more on the football game and organise as many champions as possible between schools from different cities so the players would have the chance to enhance their ability, skills and interact with different number of players to know various number of playing techniques. I will try to increase the government support for Jordanian football association, schools and universities. because we know there is no real PE classes at school.” (P6)

Participants criticised the concentration of support in Amman and the neglect of cities in the north and south. For example, one player lived more than one days travel from Amman so training or playing there regularly is impossible. Another player complained that the coach would not travel to him in Maan 350km from Amman so he had no access to coaching. Participants suggested that coaches and other staff remain in Amman only to make things easier for themselves and to take advantage of the better standard of living there.

“In Jordan sports is available mainly in Amman, and if you are far from Amman it become more difficult to participate in sports. If a young player is talented it would cost a lot for him to go to Amman and be involved with a team because not everybody can pay the costs. The players away from who play with their local teams ,they may become

known, If there team makes it to the professional league, if there teams doesn't make it to the professional league then the player won't be known. ” (P1)

“Initially when I joined Ma'an Team, there was no proper training or teaching the basic skills which was the main limitation for us during learning path. in my opinion this problem does exist only with Ma'an Team due to the fact it is far from the capital and if you wish to compete with other teams from the capital specially or north side you would face significant challenge and shortage in funds that would allow the player from different teams to enter act together and learn from each other in order to improve their skills and abilities. ” (P3).

5.5.4. Coach Education

5.5.4.1. A need for improved coaching at youth and senior level

According to the participants a lack of access to coaching is a disaster for young talent. Accessing a good coach is a major factor in sport development in any context. The coach is the main gatekeeper to all aspects of TID. However, the participants reported that in Jordan coaches lacked certification and experience to allow them to train professionally and develop the basics skills of players. Participants argued that unlike the current structure, youth players should have the best coaches because investing in young players is a long term investment in the club. Additionally, players said that football academies avoid hiring good coaches because they are for-profit academies. The players' statements here demonstrate how poor youth coaching is in Jordan.

“We do have significant lack of basics skills and I would really suggest that we start now with younger team player as we will have time to embrace their potential in the right way and avoid whatever issues that we have already faced with previous generation because in two or three years those will retire and if we do not establish the younger generation well then, we will end with nothing. (P6)

“We need to bring good coaches to train the young players not the older players, the older players will benefit the club for 5 years but the young players will benefit the club for 15 years.” (P1)

“We end up playing with same small circle. Addition on that the quality of coaches who do teach the younger players was not that high level at all, it is known that the best coaches train age groups unlike Jordan's worst and less experienced trainers who trainer age groups. ” (P3)

“Families start sending their kids to football academies and there where the problem does stand. The issue with academy that they do not have an expert coach to train the junior players or even develop their talent in a proper way due to lack of experience and knowledge. Which is more beneficiary for the academy as they do not have to pay high salary for a coach and that the opposite if we investigate international academy who usually bring the best coach for juniors as they know deep down if they built their talent well then, they would have a successful player for long run. This will result having a new junior player who does have lack of skills in term or the basics or techniques strategy. These academies do not have a specialist within their team to assess the junior player ability to know that player good at and what he should work on to improve such as receiving, passing, takeover, fitness and running speed. ” (P5)

Interviews clearly suggested that players at a senior level also face poor training, lack of knowledge from coaches. The players emphasised that coaches need to improve in their knowledge, skills and experience. One player stated he had never witnessed personal coaching or individual training in Jordan. Interviewees offered the idea that the JFA chooses foreign coaches over local ones and that players also believe foreign coaches are much better in terms of their skills and experience and development approaches.

“We don’t have coaches that develop the players. The Jordan Football Association hires foreign coaches for the first team, but he can't change much. It is better to get these coaches for the younger teams so that players can get a good foundation .and build a strong generation of players. From my opinion, I believe foreign coaches are much better than local coaches even psychologically better. ” (P1)

“Our training sessions were not at a high level that actually discovers talents. They were without professional tactics. This shows that the coaches don’t have enough experience, we need coaches to go and take better coaching courses abroad with foreign teams. Also we need strong coaches who know how to develop the players when they are young and prepare the next generation of players .We don’t have these types of coaches. We played with talents and skills that we had. The good coaches would go to the professional league, but even the first team coaches wouldn’t be that good. The coaches are past players that had a lot of respect and took coaching courses, sessions, but that isn’t enough even the professional coaching course which is the high coaching course isn’t enough. ” (P1)

“In Jordan I never saw personal coaching or individual training, sometimes during pre-season training camps the coaches would train the defenders together and midfielders together and in the evening training session the whole team would play together and this doesn’t happen all the time, only some coaches train the players this way. Sometimes they can tell you your mistakes but they don’t know how to really improve you. ” (P1)

“So, increase the quality of coaching. Some coaches accept advise and work of improving themselves, while others don’t accept any advice and don’t want to improve. Also, some coaches don’t like to exchange skills. ” (P2)

5.5.4.2. Lack of financial support a barrier to good coaching

Participants outlined that a lack of financial support plays a significant role in terms of which coach is selected, and too often a low-quality coach is chosen for financial reasons.

“Usually most of the clubs ignore the young player by bring a low-quality coach to train those players and work out on their skills and abilities due to the fact they have lack of financial resources to allocate for them. ” (P4)

“The main factor that the Jordanian football lack of and I am not talking about woman only but the whole football in Jordan for men and woman is the financial fund resources which would allow us to have the right expertise, facilities and organise matches for practice, camping and internal champions. ” (P6)

5.5.4.3 There is a need to support Jordanian coaches

Following on from above, the participants outlined a key issue facing TI and TD in Jordan is the lack of support offered to coaches. The evidence demonstrates that clubs prefer a foreigner coach rather than a local one. Local coaches particularly are unsupported a lack opportunities and may lose their job on the first loss in the game. Participants stated that coaches with experience gained abroad were better than those only with certificates or higher education.

“Currently we do have a good quality of coaches, however, the issue stands with clubs support to a coach and not to forget that these clubs always appreciate a foreigner coach rather than taking our nation coach and embrace their skills and abilities. Which limit his participate in this game. ” (P4)

“Yes, it is very important to the coach to have education. But I personally in football didn’t benefit from my certificate, Sometime I have seen that coaches who went abroad and gained experience from outside of Jordan are stronger than coaches who have high education. We could let our coaches go to Europe and learn from strong world class coaches we have talents in Jordan but we don’t have ways to develop players. ” (P1)

5.5.4.4. Opportunities coaches provide can make a big difference to progress

The players interviewed highlighted the importance of support and opportunities from coaches, one recollected that the opportunities created for him by his coach were essential for him over a long time, but when there was a change in coach he was deselected. Players presented several ways in which coach led opportunities effect players and how players were looked after by coaches, including the importance of compassion.

“The turning point in my career was when the club brought a Dutch coach. When she attended training, she noticed my skills and selected me. She stayed from 2010 to 2012. During these years I was always within the playing team. After her, a Japanese coach came in and he also told me that I should participate all the time. That time I started to think that I have a problem with the local coaches. That was confirmed when a local coach came in in 2015 and he kicked me out. So, I decided to go for professional playing, I went to UAE to take part in one the Ramadan championships there. And later, I was offered a contract to play in the Netherland but I had a displaced ankle so I couldn’t make it to the Netherland. ” (P2)

“Comparing to prior year the coach completely was negative and kept on the bench for most of the time and not even training which let me down, however, this year coach kept give motivation for me even that I only played one game during the season but throughout that time he kept training me and be supported to my skills and abilities.” (P3)

“At the age of twenty, a coach gave me a chance to play as spare player even with that I was able to build a name and reputation for myself which allow me to play as key player. After that I got different offers to play with various number of Sport Clubs before I decide to join Al-Wehdat Club where I played with for one season prior to my movement to Al Baqa’a Club where I stayed for two seasons. ” (P5)

“The quality of coaches is bad for some girls. Some girls left the team because of the coach. Coaches can do some individual work with some while abandoning the others. So, we can say that coaches lack professionalism. I think the coach should show more compassion and treat the players in a better way as this affects them. At certain time we were successful because used to care of each other and look after each other. But now, when coaches come for just some personal objectives and they don’t care what could happen to the players as long as they can fulfil their own objectives (i.e. wining the championships). ” (P2)

5.5. Discussion

The objectives of this chapter were to examine the perceptions that Jordanian football players hold regarding first, the nature of the players themselves and second, the nature of football development in Jordan. The purpose of this study was to investigate the current state of play, barriers and solutions to effective Talent Identification and Development environments within Jordanian football from successful elite player perspectives. What the findings demonstrate are numerous challenges and barriers to talent development in Jordan, and these findings furthermore revealed how Jordanian football players who are successful had to overcome and adapt to challenges in order to have these successful careers.

The results highlighted four major features of TD and TID in Jordan. These included the cultural reactions within Jordan to football players' development. It was divided into seven aspects, and the relevant aspects for the Jordanian context were low values in sports participation at the beginner level and talent development. It was seen as unlikely that an average child would be able to succeed and develop a career in sports based on poor facilities, lack of funding, and unavailability of coaches (essentially, the lack of effective TDEs.)

5.6.1 Culture within Jordan

In Jordanian society, education was ranked as a higher priority than participation in sports activities. As such, it was perceived that regular participation in football activities would then distract children from their education. This high priority for education was due to the societal perception that education was the only way to secure a fruitful future for one's child. Therefore, this negative perception about the status of sport generally becomes a major barrier for talent development in Jordan. Moreover, previous research has identified the socio-cultural factors

such as place of birth as a determinant of sport participation (Côté et al. 2006; Taylor & Collins, 2015; Sarmiento et al. 2018; Paula et al. 2018).

Further, if players disobeyed their parental unit and involved themselves in talent development activities, they would then lose the support (financial or otherwise) from their family. Therefore, the disapproval itself becomes a major stumbling block for the sports development in Jordan.

The cultural perception is simply that sports participation does not have the earning potential necessary for the average child, and this renders it a waste of time and resources. Parents do not believe that elite performance will be attainable particularly in the sport's sector. This is similar to other developing countries, such as Nigeria (Elumaro, 2015), but crucially different from cultural perceptions such as in the United Kingdom or Australia where parents provide significant support, both fiscally and socio-politically, for talent development programs and opportunities (Bloom, 1985; Till et al. 2011; Cote, 1999; Martindale et al. 2007; Knight, 2017; Olszewski-Kubilus, 2018; Coutinho et al. 2021).

Nevertheless, the determination of football players from adolescence to overcome the resistance of their parents has had a significant impact on talent development that was eventually successful. These players took advantage of small opportunities such as practicing in secret on the street with their peers, and circumvented the cultural disapproval of their parents. This shows that key determinants of successful TD in the Jordanian context will rely heavily on two main aspects: the ability to regulate time, goals, and engagement, and the commitment to development (Zimmerman & Cleary, 2006; Reverberiel et al. 2021; MacNamara et al. 2008; Cumming et al. 2018; Toering et al. 2012).

Conversely, the school system is the major structure which has been identified in sport class policy to implement its mandates and provides certain opportunities for children to engage in sports. It was found that the schools did encourage, to an extent, talent development in sports. However, the current data suggests that the schools in Jordan more often than not lack the appropriate effective environments for sports development. In particular, the collapse of the boarding school system has become a further obstacle to the school as a productive structure for talent development because it caused an acute lack of sporting facilities. Reports showed that the majority of the schools, post restructuring, abandoned or neglected their facilities, both in respect of human resources (the physical education teachers, games masters, and coaches) and material resources (the facilities themselves and any funding for them).

In line with the parental perceptions of the primacy of “education” that did not include physical or sports education, teachers were often opposed to athletic developments because they believed that developing sports talents will therefore prevent their students from devoting enough time for academic development, which is the dominating consideration within the Jordanian culture. As such, players were discouraged by their families and by their school environments; the two most prominent and influential forces in the average child’s development.

Some school principals and teachers treated students who played football as if this meant they were not serious and sacrificing their academic education. This led to them being punished for sports participation as a deterrent for other students who may have also wanted to become involved in sports. Physical education is not a part of the curriculum for secondary school, one such example of the described behaviour and perception.

These factors are major reasons why many developing players drop out of their development programmes. Young players are particularly prone to dropping out and retiring early. Findings have demonstrated that there is a need for deliberate intervention, even in the form of government policy, for producing talent development environments in the Jordanian education system. In addition, there is evidence towards a need for greater investment in sporting facilities themselves, especially in publicly owned education facilities and schools. There is sufficient similarity between Jordanian and Nigerian schools in respect to talent development (Elumaro, 2015).

There is a lack of clarity in the policies and guidelines of schools surrounding the question of how to approach and deal with talented children in physical education. The difference between sports talent and physical education talent in a school context is unclear; there is a potential for bias within teachers' pedagogy. This reveals the need for professional development of physical education teachers in order to advance talent development (Prieto-Ayuso et al. 2020; 2021).

The findings also highlighted psychological factors of successful talent development in the Jordanian environment. The most relevant factors were: self-belief, eagerness to learn, and discipline. The realities of environmental and social factors for talent development compared to features of effective TDEs would be better understood when considering the extent to which successful TID depends on the before mentioned psychological factors (e.g. Martindale et al., 2017). The literature stressed the requirement for these features in facilitating effective development: strong support from stakeholders such as parents, coaches, and teachers, and long-term goal production (Martindale et al.2007; Raabe, 2021, Abdurasulov, 2020; Popovych, 2021; Mendez-Alonso, 2021; Murr, 2018). This type of support in terms of both long-term goals and the network of people most effective for talent development is generally unavailable in the

Jordanian context, meaning that developing athletes instead rely on advancing these psychological tools in order to cope with challenges and overcome resistances to TD.

The most successful psychological factor for TID in Jordan was self-belief. Since not even the closest family members of Jordanian athletes believed in the ability of the child to succeed in their attempted development in sport, to progress in TD meant that those aspiring to become elite in their field had to wholly rely on themselves to believe in themselves as opposed to any external reassurance in their talents and drive. Self-belief is particularly important to athletic development because one of the motivations for becoming involved in talent development is the intention to prove parents wrong for resisting sport development.

When the gendered element in sports development is compared, the results demonstrated that female athletes unsurprisingly had more challenges playing football in terms of receiving the support from their family and society when compared to males. Additionally, the Muslim female football players on the Jordanian national team exposed the FIFA's Islamophobic hijabophobia in its interpretation of Law 4. Despite the unjustness of the FIFA law, the female Muslim players acted with resilience in fighting against this interpretation that took away their rights to play while respecting their religious requirements. This suggests that Muslim females are active agents in their own lives and on a global level; they have proved to be willing and able to fight against institutional discrimination both internal to their communities and external to the global sporting community. Non-Muslim/Western policy-makers, researchers, teachers and trainers working among Muslim women and youth need to consider both the specialised challenges and injustices posed, and the resilience grown from, as crucial context for their research, pedagogy in physical education and sport curricula. There is an urgent requirement to challenge Islamist and

Islam phobic hijab phobias in the theories and approaches that have been developed for sport and physical education.

During this struggle between Muslim female athletes and FIFA, the athletes asked Prince Ali of Jordan who is the president of the West Asian Football Federation and the VP of FIFA for Asia, to support in their plea against this law. They took their argument and protest seriously and brought it forth to the President of FIFA. Prince Ali of Jordan stated that Muslim women are being driven away from football through this ban on the hijab, and that this decision affects the entirety of women's football in the Islamist world, beyond the particular context of Jordan (Hamzeh, 2015; 2017, Ayub, 2011). FIFA overturned the decision to ban the wearing of the hijab, in no small part due to the efforts of the female athletes themselves, and the political support from Jordanian officials that they garnered during their plea.

Another aspect that has crucially affected progress in TID in Jordan is the role of luck. Finding the right, effective environment in which sport development could occur is based largely on luck. Since many or most communities lacked support for sports, most families were resistant to talent development, and good coaching and serious funding is hard to come by, to find the exceptions for these structural challenges comes down to luck in many situations. "Luck" as concept has been reported as one of the important factors for successful development in other cultures, but it has been shown to be more critical a factor in Jordan where progression in talent development is to a large extent dependent on chance and the particular ability to find these exceptions to widespread "rules" (Albert, 2016; Bailey, 2017; Augestad et al. 2020).

5.6.2 Lack of professionalism and resource within Jordanian football structures

The second major feature that hinders talent development in Jordan is the lack of professionalism and resources within the football structures. The study demonstrates that there is no actual application of sports professionalism in part due to the fact that there is no independent legal system for sports professionalism in Jordan. This is connected to the deficiency in legislation creation for the field of competitive or elite sports. This type of legislation is crucial to develop sports professionalism, beginning at the “top” (elite fields) but inevitably having a trickle-down effect on ideas of sports professionalism generally. For example, there is no sports judiciary for any disputes that may arise. “Professional sports” has not been defined in an official or legislative way failing to identify the explicit and essential features of professionalism.

The study defines professionalism in football as: “where football or any sports activity becomes a profession, it is when it requires that the player or athlete who practices the game becomes a professional, meaning he exercises continuously and regularly for the purpose of achieving financial returns for their individual livelihoods” (Hassan, 2014, Page15; Al-Hunaity, 2018; Al-Adwan, 2012).

Many of the studies surveyed recommended that the development of professionalism and its correct application in the Jordanian context requires the implementation of legislation and the implementation of a sports judiciary for disputes arising from the application of definitions of sports professionalism (Hassan, 2014; Al-Hunaity et al, 2018). The definition of contracts for professional football players, standardization of contracts for professional football, the definition of a sports club, and the organisation of professionalism within the field of elite football through independent, specialised law instead of mere regulation would lead to stronger professionalism

as the force of law is both stronger, enjoys greater primacy, and is generally more prestigious (Al-Hunaity et al. 2018).

The other aspect considered relates to a lack of resources. The consequences of poverty, poor management, and corruption in this context are an acute lack of facilities. Currently, results show that there is a prominent shortage of sporting facilities across the Jordanian football clubs, JFA, and schools. Without such facilities and resources, children, older adolescents, and higher level football players who desire a full-time career, all lack the essential facilities that lead to achievement of such talent development and its fruits.

When compared to nations with clear policy direction for talent development, including high levels of investment (UK, Australia, Canada, Europe), the current findings demonstrate a considerable lack of investment in sports development in Jordan, shown primarily by the poor state of facilities and general sporting infrastructure across the country (Grix & Carmichael, 2012; Mair et al. 2021; Wodniak, 2021).

A lack of competition was also found to be problematic in the development of sporting talent. This meant there was no encouragement or drive for players to develop without the competitive element—since the national team and Jordanian clubs generally were not included in world competitions such as AFC champions league, and the World Cup, this resulted in the absence of friction or motivation that regularly arises from high level competing. Jordanian male players played on average 22 games per season in leagues with 11 clubs, while female players only playing 8 games per season. Internationally, to compare, the average professional player will play on average forty to fifty games per season (Picazo-Tadeo et al., 2010). The lack of the competitive element weakens TID and TD.

Yet another element that weakens TID development, though within the social and economic sphere, is corruption and mismanagement. Corruption is defined as the abuse of public office, and its powers, for advantageous in the unrelated personal or private sphere (Srivastava et al., 2016). In Jordan, mismanagement arises first through the selection of administrative leaders. This process often lacks the objectivity required, and often results in appointments for individuals who do not possess the minimum experience and competence required for their respective positions.

Osamah et al., (2015) and Nawafah (2013) reported that administrative experts have unanimously concurred that there is a frequent occurrence of financial and administrative violations. The reports of the Audit Bureau “indicates the existence of corruption and an administrative defect, weakness in the capabilities of institutions and their human resources, as well as internal control systems, which increases the degree of risks in encroaching on public money and wasting it” (Nawafah, 2013, P8).

Within the studies relating to administrative mismanagement, it is explained that ““We [Jordan] do not have a management crisis, but there is mismanagement, which has led to the Jordanian administration reaching what it has now reached”; Nawafah, 2013, p10. It continues by noting that Jordan has ample administrative energies, and worthwhile leaders, but the problem itself is that there is an absenteeism of these capable leaders in lieu of others without the required competencies. Therefore, efficiency and efficacy in the public is possible, but the problem of mismanagement and bias in the selection process has to be remedied (Mauro, 1996; Guetat, 2006; Nawafah, 2013; Bonga, 2021).

Results detail that poor management of resources in Jordan are a factor of poverty. It is argued that the lack of TID in Jordan is because of a “culture of waste”, and the mismanagement of available resources, which thereby hinders the potential for economic development. Further, policy failure, faulty management, and dependence on natural resources similarly impact economic development in developing countries generally. One specific example of how the mismanagement of resources leads to poverty is because there is a lack of a clear policy, and without such a clear and consistent policy direction aimed at economic growth and sensible investments, the inequality among people continues and grows. To specify this to football players, sometimes talented athletes will fail in securing deserved positions and roles because decisions on selections can be based on who a footballer knows and not their actual ability. Several footballers for national teams have been found to be recruited based on their connections within the system, which shows a prevailing nepotism that can be connected to broader corruption and administrative mismanagement. The players’ perspective details that there are malpractices in the management of sports in Jordan—the players communicate their disappointment with the administration of clubs and associations.

Corruption and mismanagement issues are widespread in sport when developing countries are considered (Mauro, 1996; Guetat, 2006; Nawafah, 2013; Elumaro, 2015; Goedhys, 2016; Bonga, 2021). As previously mentioned, the impact of the financial situation of a family, or even an entire country, when it comes to football participation and the development of football players, is substantial. When families are unable to support their children financially, it can greatly affect their potential career in sport particularly. The economic crisis in Jordan effects football players greatly, and has influenced the available resources for football development.

Economics was found to be the number one barrier to talent identification and development in sports in the Jordanian context. The problem of funding spanned from the large economic problems in the country. Many of the players were reported to be in debt and as such owing their salaries for several months without any hope of paying the arrears. This led to many of the footballers rethinking their future. Participants highlighted that when they reported combining university or working with a sport career, due to being afraid for their future as well potential income for them and their families, meaning they could not commit fulltime participation in the sporting realm. Furthermore, Because of the coronavirus pandemic many football clubs in Jordan are at risk of bankruptcy and football players live in financial hardship due to clubs delaying the pay of their salaries. The funding of this study is similar to many studies across third world and developing countries (Elumaro, 2015; Stubbs et al. 2021; Araar & Timothy, 2006).

Now the discussion will move to the physical challenges that Jordanian football players face. Injuries were described by the football players as the main physical challenge that players may face during their development. Participants of the study reported that injuries can affect them both physically and psychologically which eventually may lead them to avoid pursuing their sporting career any further. They stressed that the rehabilitation period is crucial and medical staff, support from family, coaches and clubs are essential to help them return to their sporting careers. However, they suggested that unfortunately in some cases injuries can be the main reason that players do not reach their best potential, and has even lead to a phenomenon of heightened fear of injury within Jordanian football players. Additionally, participants complained about not having health insurance, and highlighted the lack of experience of sport therapists and specialized hospitals that they encounter.

The findings of the above study are similar to a Jordanian study (Hatamleh, 2010; Altwassi, 2015), which found that sport trainers reported that injured athletes experience feelings of depression, mourning, loss, and frustration. Additionally, they often denied their injury during the treatment process (Hatamleh, 2010). Examination of the literature within this area suggests that depression and its associated behaviours, the fear of injury and re injury (manifest as “re injury anxiety”), and post-traumatic stress disorder are serious challenges that follow are problematic responses to sports injury (Hatamleh, 2010). They indicate that the players themselves begin to suffer very poor mental health, causally linked to the physical injury itself (Maurice, 2021; Truong et al, 2020; Gledhill, 2021). The main barriers to alleviating the poor mental health that arises from a physical issue are: the stigmatization of mental health conditions, low societal and cultural information and understanding about mental health, and having negative past experiences with seeking mental health support (Truong et al. 2020, Gledhill, 2021).

5.6.3 Talent Development Planning & Expertise

The results indicated a lack of *formal* pathways for talent development. This is compared to the usual or common “pathways” and opportunities for football player development generally. There are no school or government systems, nor club systems, to provide the necessary structures for talent development (Bloom, 1985; Cote, 1999; Balyi & Hamilton, 2004). The *informal* pathways were much more common, such as unstructured street play which enhanced the players’ love for sports and interest in developing their talent. Even though there exists this lack of formal pathways and structure within the sporting system, and it is problematic and hinders TID, all the participants were in consensus that there is no clean-cut system for TID and TD. For example, *Player 1* stated that, “I would say there are systems to develop talent in Jordan, but unfortunately

its only on paper and there are a lot of limitations that stopped the process of making that a successful system, due to lack of guidance and financial support”. Based on the previously discussed challenges (the familial, financial, school, and societal), coupled with the instability in performance and results of the Jordanian national team, the lack of systemic TID and TD is unsurprising.

Now will follow a discussion regarding the transition from youth to adult play. The transition from development to mastery involves transitions in related human spheres, such as the psychosocial, psychological, and vocational (Wylleman & Lavalee, 2004). Athletes described the transition from the amateur level to the professional level, and the transition of the pre-elite level to the elite. The understanding is that these are *normative* transitions despite the fact that they do not follow in the same pattern and as such their predictability is mitigated. These transitions are varied greatly by the individual, the nature of the sport, and the environmental and temporal features of the individual case. For instance, in this study football players completed at pre-elite level, made the transition from junior to senior level, and then became elite level athletes after the age of 18. In other cases, though, footballers transition from an amateur to a professional elite level (such as training and competing at elite level academies of already existing professional teams), while they were junior athletes, transitioning only later to the elite senior level.

In Jordan, the transition from youth to adult play is very important in the development of a player (Andronikos et al, 2019). There are frequent reports of these transitions being especially poor and challenging (Wylleman & Lavalee, 2004). They depend on unpredictable voluntary support from older players, and there is no system in place nor any specific professional support or programmes. Participants offered several examples of improvements needed for young players to

be able to develop effectively, including more matches, better partnerships with sport academies and more support from the Jordanian Football Association.

TD does not receive enough support from the school system. Due to the deficiencies of the school environment, such as inadequate teachers, the lack of facilities, and the lack of consistent funding, the school system is not an environment conducive to TD. Players noted that many of their teachers, akin to the perceptions from the family and society at large, discouraged them from pursuing talent development. Therefore, self-determination and self-regulation are features of an athlete that are more indicative of successful development when compared to other potential avenues (Wang & Biddle, 2007; Ryan & Deci, 2020; Vasconcellos et al, 2020; Cote & Hay, 2002; Cumming et al, 2018; Reverberiel et al, 2021). Compared to other cultures and countries where significant others in an athlete's life provide continuous and tangible support and encouragement and development (Henriksen et al, 2010; Li et al, 2014), this is not the case in Jordan. Most communities and schools offered very few opportunities for TID, though some cities with far more conducive economic climates will have stronger supports in terms of capital and facilities. The place of birth when considering effective development becomes a vital determinant of success (Cote et al. 2003; Hancock et al. 2018; Cote et al. 2021). Where results showed a lack of interest in players and sport, the cities were distant from Amman (the capital) and other bigger, more economically sound places geographically.

5.6.4 Coach Education

The results also identified some issues relating to coach education and the quality of coaching available to developing football players in Jordan. The participants revealed that finding a coach was very difficult, and that most players are practicing sport on the street recreationally without any professional guidance that could lead to development. This leads to the conclusion that sport

development is an *incidental occurrence* in Jordan, and does not generally follow a planned or systematic course of procedure. This finding provides further evidence for previous suggestions that there is a strong association of the poor quality of coaching and challenges for sports development in Jordan (Adesanjo, 1997; Ojeme, 2000; Hatamleh, 2010; Nawafah, 2013; Salmi, 2018).

The role of the coach is critical to successful talent development in sports (Bloom, 1985, Eze. 2015). Developing athletes absolutely required the experience of coaches to guide them through the stages and transitions of development. They do this by identifying the appropriate activities in training and the correct intensity for such activities, as an example. Without such guidance, football players can expend their time and energy on the wrong types and intensities of sport activities and thereby negate any positive effects on their development. In one study of the factors of effective TDEs, it was argued that coaches as well as family members, play crucial roles in TID and thus coaching is included in the framework that identifies the key features of an effective TDE (Martindale et al., 2007).

The current study revealed that majority of developing footballers in Jordan lacked access to coaching, and those who have access to coaching do so by luck. There were no coaches at the community level where the majority of children and young people with potential sporting talents could be identified and assisted to grow their talents, whereas, being identified with potential is critical because it serves as a source of motivation and determination to get through challenges. Rather, coaches prefer to work in the big cities for organisations where they have the potential of earning higher wages. In terms of quality, the majority of coaches in Jordan have been perceived as lacking in their ability to keep up with coaching trends and innovations. This position is supported by participants in the current study who observed that many Jordanian coaches did not

have the right credentials and requisite experience in coaching but rather lobby for the job through their connections in corridors of power (connected to the discussion regarding mismanagement and corruption).

The results further revealed that the support, both in kind and in quality that is given to developing athletes make significant and indispensable contributions for their successful and effective development. This finding provides further evidence for earlier studies that suggested a relationship between the quality of coaching and effective talent development (Bloom, 1985; Saavedra, 2003; Short & Short, 2005; Bouwer, 2010; Nawafah, 2013; Schlatter & McDowall, 2014; Salmi, 2018).

The role of an effective coach will be discussed here. Apart from designing and implementing training programmes, Jordanian coaches extended their role beyond the professional in ways such as supporting players financially and providing the encouragement and motivation that should have been provided by the family. The coach also served as a role model for commitment, by demonstrating to the players their personal commitment to the individual player's progression. The data supports the role of the coach in the development and deployment of mental skills to aid successful development (MacNamara, 2013). For example, participants reported that their coach assisted them to defy the familial resistance they were experiencing by assuring them that once they are successful, the family will turn back to support them, and so the athletes continue to defy their parents to attend trainings.

Research identifies 5 key features of effective TDEs (Martindale et al., 2005; 2007), include: long terms goals and methods, consistent and clear messaging and support, placement of the locus on appropriate development as opposed to early success, individualised and continuous

development, and integrated systematic development which follows a procedure. However, all these features of formal talent development are excluded in the Jordanian football development environments. One such reason is because there is no perfected, clean cut programme for TID on the whole. However, if a player enjoys the luck of finding an adequate coach, the coach may make efforts to garner the support from the family, teachers, and other important persons in order to support the progress of the athlete, as well as to encourage long-term development (Martindale et al., 2005; Henriksen et al., 2014).

Despite the Jordanian environment lacking in formal TID processes, Jordanian children are mostly physically active. This is an advantage to the talent development. Unlike the developed nations where children do not participate by necessity in such regular physical activities for survival, as the society (family, government etc.) have enough provisions for the children, the general physicality among Jordanian children can form the foundation for subsequent talent development in sports.

When a Jordanian athlete succeeds in finding adequate coaching, the coach plays very important roles (that is to say, a far more significant role than reported in other cultures). Research across different socio-cultural contexts consistently notes coaching among the key elements for successful sport talent development (Bloom, 1985; Cote et al. 2003; Martindale et al. 2007; Vaeyens et al. 2008; MacNamara et al. 2008; Gillet et al. 2010; Coulter et al. 2010). In the Jordanian context, the role of the coach is even more expanded to include roles traditionally fulfilled by family members. For example, the coach can sometimes represent a ‘father figure’ and role model to athletes when they feel disenfranchised and disconnected from their own family and society generally. Players rely on their coach for moral support and encouragement

that the family failed to provide, and they rely on the coach for financial support and even for accommodation in some cases.

Finally, it must be acknowledged that the results in this study are limited by the small sample size of six interviews with elite football players. There were several practical reasons for this (e.g., COVID-19 impact on society and willingness of participants to meet for interviews), however, the data did reach saturation, where there was consistency in the key messages that emerged from this cohort. Given the challenges around coaching and administration of the game in Jordan that emerged from this study, it is important for future research to carry out an exploratory qualitative study that interviews experienced coaches and administrators working within the Jordanian football context.

Chapter 6 – An investigation of the current state of play, barriers and solutions to effective Talent Identification and Development environments within Jordanian football: Coaches’ and administration’s perspectives

6.1 Introduction

Talent is a resource in society. It is that which refers to the mastery of abilities and skills in at least one particular field of human activity. This resource is very valuable, not only to coaches, but to administrators and the overall government of a particular nation (Abbott et al. 2005). Irrespective of these facts, individuals with the potential to develop their talents to this level are frequently left behind without having this potential realised (Gagne, 2004; Baker et al. 2020;

Cunningham et al. 2022). Whereas in the past researchers looked at talent, especially in sport, as something entirely innate there is no compelling evidence to suggest that there are environmental and psychological factors which influence the development of talent (Martindale et al. 2005). This study allows policy makers, coaches, and parents to better understand how to allow for a conducive sport development environment to exist for those with potential, thereby allowing for more elite athletes to find success.

In the previous chapter, the unique context of talent development in Jordan was investigated from a player perspective. The results highlighted that Jordanian football players face many socio-cultural barriers to sports development when compared to other countries both regionally and internationally. This results in talent development being considerably harder to attain in football players—particularly female football players. Some research has argued that effective talent development requires a network of clear and robust support from relevant stakeholders such as parents, teachers, and coaches (Martindale et al. 2007; Taylor et al. 2017; 2018; 2021; Taylor & Collins, 2022). In the Jordanian context, though, the previous chapter found that such support from significant individuals and organisations is what has been ultimately lacking and resulting in poor talent development. The previous chapter revealed that environmental factors play a role in the lack of talent identification development in Jordan. Yet, the player perceptions reveal that beyond the environmental hurdles, one of the most pressing limitations to TID was the widespread opposition against sports participation. There was found to be very limited amounts of support for sport development in all sectors of society including not only the ‘relevant stakeholders’ such as the family and the school, but including the government and the whole of society generally.

All this considered, it was nonetheless revealed that one particular actor played an important role in development support for players. This is the coach. The coach was found to be the second most effective factor for talent development and sporting success, second only to the players themselves. The coach was found to perform different and more integral support functions than mere technical and tactical guidance. These roles played by the coach include assisting players financially when they are unsupported by their families, assisting the players morally, and even transcending to a more 'fatherly' role. The coaches have even been known to provide accommodation for players, further cementing their unusual role in a player's life, especially when considered against other cultures.

More dated research has defined the role of the coach as that which partakes in knowing, observing, and assessing the process of players' talent development for the purpose of setting goals and developing strategies to achieve those goals (Worthington, 1984; Hill et al. 2015; Wachsmuth et al. 2022). This definition runs starkly in contrast to the role that the coach plays in the Jordanian context, suggesting that the understanding of relevant environmental and societal features in Jordan will differ from the norm.

Further, other aspects of the coaching relationship in the context of TID have been studied, such as: the relationship between coaching behaviour and TID (Ashford et al. 2020; Gill, 2021), mentorship (Duckworth & Maxwell, 2015), coaching and coaching education (Panfil et al. 2015; Kelly & O'Regan, 2021), and quality coaching and coach development (Mallett, 2011, Rizvandi et al. 2019). This goes to show that coaching research itself is very vast, yet the gap in research as it stands with coaching in the Jordanian context is equally as large. It is therefore imperative to research further the nature and quality (both descriptive and relational) of coaching and talent development in Jordan. The need for this more nuanced investigation is due to the requirement

for cultural sensitivity in TID and the need for caution in applying cross-cultural research in TID (Saltapidas & Ponsford, 2007; Collins & Bailey, 2013). Research into talent development, the coaching relationship and role in Jordan will further strengthen the understanding of the nature of TID in Jordan generally. The previous chapter demonstrated the perspective from only one viewpoint—the players. Therefore, it is likewise imperative to investigate in a way that elucidates a fuller understanding of all perspectives, that is to say, considering the coaches and administrators perspectives as well.

This chapter also builds on the findings from the investigations in chapter five addressing the perceptions of elite football players. Chapter five investigated talent development by considering the perceptions towards elite coaches and administration, families, schools, and wider society within Jordanian communities. The elite players put the onus on the attitudes of the family and other significant persons for the challenges faced by football players and their sports development. Therefore, the current study aims to further interrogate and understand the cultural practices and beliefs found in Jordan that lead to the reported negative attitudes toward TD in sports. While validating the claims of players is of the paramount importance, it is also important to explore these claims and the general cultural context of TID more broadly by taking into account the perspectives of coaches and administration. Considering the perspectives of the people who are more personally and materially affected by the circumstances (the players) can lead to a highly personalised view of the processes. Therefore, the perceptions of coaches and administration, who are experienced and have more experiential data of the cultural phenomena discussed, can potentially provide a more objective analysis.

The triangulation method has been used previously in studies of talent identification and development to address obstacles related to achieving effective TID (Wolfenden & Holt, 2005;

Gould et al. 2002; Martindale et al. 2007; Holt et al. 2009). This method takes into consideration the perceptions of other key stakeholders in sport talent development and have as such made important and influential contributions to our understanding of the subject.

Finally, it is important to note that most TID research has focused on specific socio-political cultures found in North America, Australia, and Europe. However, concepts such as ‘expectations’ and ‘opportunities’ are socially and culturally defined for TID (e.g., Elumaro, 2015; Elumaro et al. 2016). It is therefore imperative to consider how TID is embedded within the Jordanian context to garner any accurate understanding of TID for Jordanian athletes. For example, Jordan has very context specific barriers to successful TID such as limited infrastructure (Alzoubi, 2019), low quality implementation of policies and programmes in sports TID (ibid.), and socio-economic problems both broad and those such as limited finances impacting on injury and recovery. Moving on from considering how athletes relate to these difficulties and obstacles, this chapter focuses on examining the perspectives of successful coaches and administrators to investigate the current state of play, and the barriers and solutions to effective TID environments in Jordanian football.

6.2 Methodology

6.2.1 Design

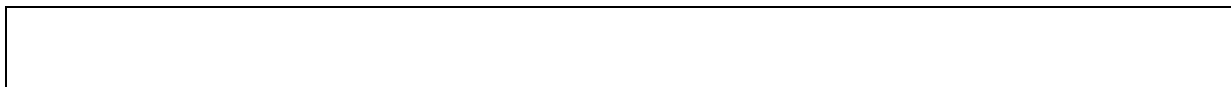
This study hoped to improve knowledge of the socio-cultural context of TID in Jordan, specifically relating to the football sporting discipline. It targeted questions of the difficulties that footballers face and how they confront them to be able to succeed in a football career, from the perspective of the coaches and administration involved. A qualitative methodological approach was selected due to the nature of the inquisition, and the complexity these issues bring forth. Using this methodology allows the researcher to continue inquiries with additional questions

which allows for a fluid study that can shape itself to meet the research objectives (Guest, Namey & Mitchell, 2013). Additionally, a qualitative approach can provide more specific data and give a clearer picture of the phenomena studied. This method allows participants to feel freer to share their experience and knowledge without the limitations set on a strict method of inquiry (Neuman, 1997; Berg, 2004). This approach was also useful for mining historical information about nature and quality of a participants process in becoming an elite coach or part of the administration. Finally, this approach reduces the possibility of misunderstanding during the data gathering process since participants had the ability to ask for clarification, and the researcher was able to repeat or question the participants if unclarity or misunderstanding occurred (Guest et al. 2013).

This study made use of ‘semi-structured’ interviews for questioning the participants’ experience of TID and TD processes in Jordanian professional football. This form of interview is a methodological tool that is widely used and offers the ability to appreciate and receive more clearly the responses of the participants (Bryman, 2004; Soobaroyen & Mahadeo, 2012; McNulty et al. 2013).

An interview guide was created by the researcher, including a list of questions developed to assist in directing the interview conversation towards the key issues to be researched and discussed. The ‘guide’ aspect of the interview meant that each participant was able to share any other related information, comment, or opinion at any time during the interview. The interview guide is shown in figure (6.1).

Figure 6.1 Interview questions used for data collection from Coaches’ perspective



Interview Guide

1. Could you tell me about your working career and current role in sport?
2. Can you give me an overview of what you do when you train and develop football players?
3. Are there differences between this and the elite training football players / national footballers?
4. What stages do players have to go from beginner to elite / national football players in the Jordanian environment?
5. What kinds of support do you think are necessary to develop football players in Jordan?
6. What factors characterize someone with the ability to become an elite national athlete in the Jordanian context?
7. How effective are current talent development processes in Jordan?
8. What are the obstacles or challenges to the successful development of football in Jordan?
9. Based on your experience with Jordan's talent development environment - what needs to be done for future improvement

Figure 6.2 Interview questions used for data collection from Administration's perspective

Interview Guide

1. Could you tell me about your working career and current role in sport?
2. How successful is Jordan in an international football context?
3. Could you give me a general overview of the nature of the culture within Jordan as a country and local communities from football context?

4. What stages do players have to go from beginner to elite / national football players in the Jordanian environment?
5. What sorts of support do you think is necessary for developing footballers in Jordan?
6. What barriers or challenges exist for successful development in football in Jordan?
8. From your experience of the Talent Development Environment in Jordan – what needs to be done to improve in the future?

A pilot interview process was carried out. This was for the purpose of assessing the interview guide and allowing for any adjustments that may be required. These pilot interviews were completed with two members (one coach and one administration) of the Jordanian national football team. The first participants for the pilot was identified through personal contacts of the researcher. The study and interview process was explained and the carried out. Following this, feedback on the interview was received. The contact further put the researcher in touch with a professional coach for the second pilot interview. The researcher, following the first pilot interview, altered the interview process. The question order was edited in order to develop a more chronological flow. Second, the questions were also edited for clarity as feedback suggested that certain wordings could be changed to more simply and directly address the issue. In line with the pilot study feedback and suggestions by Watson (1997), interviewer bias was minimised by ensuring that participants had the freedom to share the relevant experiences that they themselves found important in their training processes, even if they did not directly relate to the questions found in the interview guide. Patton (1990) and Creswell (2016) outline helpful guidelines for avoiding bias which were incorporated in the study. Such guidelines included adopting a neutral position when probing participants, rapport building, and open responses

(Backstorm & Hursch-Ceaser, 1981). The final data report contained the pilot interviews as they were of an adequate quality and the participants for them met the participant criteria.

6.2.2 Sample size

Qualitative studies generally include between one and twenty-one participants (Carless & Douglas 2012; Papathomas & Lavalley 2012). Large samples are counterproductive for qualitative studies because the rich detail that is sought out will be repeated and replicated by a large sample size, creating mass amounts of data and an inefficient study (Ritchie, Lewis, and Elam 2003; Creswell 2013). There is no interest in issues of prevalence or incidence, so there is no need for a fixed sample size.

One strategy used to identify sample size is ‘saturation’. Morse (1995) provides a definition of saturation as: collecting data until there is no more new information gathered. Another study found that when studies with highly homogeneous populations, it is enough for researchers to conduct just six interviews to develop significant themes and analyses (Guest, Bunce, and Johnson, 2006).

6.2.3 Participants

The study involved eight participants all of which are current members of the Jordanian football association (coaches and administrations, both male and female). This allowed for the effectiveness, or lack thereof, of the Jordanian football TID processes to be assessed in comparison to the demands of a professional sporting environment. Table 6.1 provides information about the participants in the study. The participants include six (male) coaches, and two administrators (one male and one female). Four of six coach positions were denoted as ‘head coach’ (between national teams and pro league clubs). Two of six coach positions were denoted

as the coach of an age group (Reserve team T23, Youth national team T19) for men’s and women’s teams. The participants under the title of administrator were: a department head of women’s football in JFA, and the Jordanian National Team Manager in JFA. Six out of the eight participants have attained higher education degrees, while two of the eight have high school diplomas. Experience in the relevant football sporting industry was between 5-35 years.

In order to identify participants as elite coaches, three measures were used. First, participants had to have achieved an A coaching certificate from the Asian Federation, and have had to participate in a coaching role in one or more local or international tournaments (such as the Asian Cup, Jordan Cup, or Jordanian League). Second, they must have been members of the Jordan Football Association. Third, a significant part of their careers must have taken place in Jordan. This included the requirements that none of the participants had professional sporting activity abroad prior to being selected as coaches of the Jordanian National Football Team or other clubs. The third measure was put in place to guarantee that the participants have specifically worked under the Jordanian TID context, and that no significant external socio-cultural factors informed their perspectives on the subject matter. Moreover, the measures were used for administrators; participants had to have participated as administration in Jordanian football association, to have participated in one international tournament, to have at least 10 years of experience in administrators.

Table 6.1 participants by age, gender, education and experience

| Participants | Position | Gender | Education | Years of Coaching Experience |
|---------------------|------------------------------|---------------|--------------------|-------------------------------------|
| C1 | Coach of Age Group For Men’s | | Uni. Undergraduate | 9 |

| | | | | |
|----|--|--------|--------------------|----|
| | Football Club | Male | | |
| C2 | Head Coach of Age group for men's Football Club | Male | Uni. Undergraduate | 16 |
| C3 | Coach of Age Group for Women's Football Team in JFA | Male | High School | 20 |
| C4 | Head coach of Jordan national women's football team In JFA | Male | Uni. Undergraduate | 35 |
| C5 | Head Coach of Men's Football Club | Male | PhD in Sport | 25 |
| C6 | Head Coach of Football Academy | Male | High School | 5 |
| A1 | Head of women's football in JFA | Female | Uni. Undergraduate | 10 |
| A2 | Jordanian National Team Manager in JFA | Male | Uni. Undergraduate | 11 |

6.2.4 Procedure

The Research Ethics and Governance Committee of the School of Applied Sciences, Edinburgh Napier University granted approval for this study prior to any contact with the participants, potential or final. The Jordan Football Association (JFA) was approached to assist with participant recruitment and contacted potential participants. The researcher also contacted prospective participants through networks in the Jordanian football community. A participation e-mail was sent to the prospective participants with details of the study and an explanation of the participants role. It was made explicit to the prospective participants that there was no

compulsion to take part in this study, and that they were able to withdraw their consent in taking part at any stage.

The participants gave their written consent to be involved in this study. They were made aware that their participation would remain confidential and all information anonymised. Out of 14 participants contacted, 8 elite coaches and administrators were recruited. COVID-19 was established as a substantial factor for difficulties in recruitment. The researcher travelled to Jordan in February 2020 to collect interview data. For much of this time, Jordan, like the rest of the world, was in the midst of a full lockdown. Participants were therefore less willing to participate than expected. Irrespective of these difficulties, I argue that saturation was achieved after 6 interviews, confirmed through the full 8 interviews.

All personal information and other data have been securely maintained and password protected. Only the researcher and the supervisor had access to this data. All participants are anonymised in all the resulting reports, presentations, and publications.

The participants received details of the interview including key questions prior to the interview date, in order for the participants to have an opportunity to fully understand the process, and therefore provide richer and more dense data (Martindale et al. 2007; Burke & Miller, 2001). It was important for the study that the interviews were carried out face-to-face and not as telephone or online interviews. There are two reasons for this. First, body language such as facial expressions are irreplaceably important for dialogue, and are only present in their truest form when working face-to-face (Bryman, 2004; Yazdifara et al. 2008). Secondly, a comfortable atmosphere and a building of trust between the interviewer (researcher) and interviewee (participant) is more effectively established during face-to-face contact (Bryman, 2004). The

primary researcher conducted all the participant interviews which lasted around 60 minutes each. Each of the interviews were conducted and recorded in Arabic. The recordings were then translated and transcribed verbatim into English by the primary researcher.

Using the identical interview guide for each participant ensured the same structure of questions, and that in turn, each provided a consistent and in-depth examination of TID. Additional elucidation and probing was conducted as necessary for any of the participant interviews.

6.3 Data Analysis

The interview data was analysed using the technique of ‘inductive analyses’, informed by the work of Kingston, Edwards, Hardy, and Gould (2002). The data was read and preliminary notes taken by the researcher. Initial codes for the data were then generated, and an exploration into themes rose from this process. These themes then developed in relation to the data set (Braun & Clarke, 2019). The inductive method of analysis uses the incorporation of coding experience and inferences of similarity (Patton, 1990). Themes were developed by comparing the coded experiences and constellations of analogous experiences. This process then progressed from coding experience to making inferences of similarity. These themes were then linked to produce certain categories, and these themes then compared to each other and grouped into categories, either specific or general. This comparison process was continued until the data was saturated. The last process involved assigning a definition and name to each theme used to accompany the quotes in the results write up (Martindale et al. 2007).

Reliability checks were conducted in collaboration with the study supervisor (Scanlan, Ravizza, & Stein, 1989). It is suggested that experts in the particular area are consulted after each step in the data analysis to examine the interpretation and understanding by the main researcher

(Shenton, 2004). This process is to reduce as much potential bias in the study and the analysis of the results. This requirement was met by the researcher by having fortnightly meetings with the study supervisor for reviewing the analysis and collaboratively developing the results. This allowed for a continuous review of the coding process and discussions regarding any arising issues of erroneous interpretation, emphasis, or assumption within the process of data analysis. These discussions were continued until full agreement was reached between the supervisor and researcher. The results included subthemes and themes with accompanying quotes from participants to confirm the support for their inclusion.

6.4 Establishing credibility

This study demonstrates its credibility through the steps taken during the research process (following Scanlan, Ravizza & Stein, 1989; Patton, 1990; Morse et al. 2002; Creswell, 2016). The process included interview questions which were tested to be *open-ended* and *unbiased*. The raw transcripts and the analysed data was shared with the participants to achieve their agreement on its accuracy. Both the main supervisor of this study and an independent researcher (not part of the research team, but still an expert in the relevant field) conducted independent reliability checks to confirm the study process and results. Three further experts in the field of TD provided feedback after the results of this study were shared with them, ensuring agreement on the reliability checks of the study results among different individual researchers in the field. Lastly, the researcher discussed the details of the results and reliability checks with the supervision team so as to come to agreement for the order and presentation of the themes found in this study.

6.5 Results

The findings from the data analysis revealing the nature of athletes' development in Jordan are illustrated in table 6.2. Five general themes were highlighted 1) Infrastructure, financing, long-

term planning and running of Jordanian football organisations, 2) Football is popular, but family/cultural support for football development as a career is poor albeit improving, 3) Football development is more Accepted, but the Priority for Age-Group development is low, 4) Potential Solutions at Age Group Level, 5). Role of the coach. A broad description of the general themes and sub-themes is presented in this section with example quotes to support emerging pattern.

| Themes | General themes |
|---|---|
| <p>1.1. Administrators believe Jordan is doing well and patience is required</p> <p>1.2. Some believe that while financial stability needs to be developed, progress is happening</p> <p>1.3. Women’s football in particular seems to be doing well and is well supported</p> <p>1.4. However, many coaches believe there is a lack of long-term planning, strategic thinking and financial resource for football development in Jordan</p> <p>1.5. A lack of infrastructure is a barrier to implementing long term plans and goals</p> <p>1.6. The consistency of support for development gets worse further away from major cities, but this may be a work in progress</p> <p>1.7. Support for club players and coaches is said to be poor or non-existent – including finances, transportation, equipment, training space - Salary</p> | <p>1. Infrastructure, Financing, Long-Term Planning and Running of Jordanian Football Organisations</p> |

| | |
|---|--|
| <p>1.8. Transport allowance</p> <p>1.9. Equipment & Training</p> <p>1.10. Financing treatment for injured players.</p> <p>1.11. Progress and promising plans have failed due to poor club management, lack of administrative expertise and financial support (Poor management and lack of resource)</p> <p>1.12. Need to improve working relationships and clarity of roles within clubs and removing corrupt influence</p> <p>1.13. Important to have the right expertise and staff</p> | |
| <p>2.1. Football is popular in Jordan</p> <p>2.2. However, parents want their children to have a financially stable future, football isn't perceived to offer this</p> <p>2.3. Attitudes are changing, but more education and support is required</p> <p>2.4. The acceptance of female football has been much harder to find support in society</p> <p>2.5. Gaining more acceptance has required hard work and influential people (Prince Ali Bin Al Hussein influence and work)</p> <p>2.6. Outreach and education initiatives</p> | <p>2. Football is Popular, but Family/Cultural Support for Football Development as a Career is Poor albeit Improving</p> |
| <p>3.1. Age group development low priority</p> <p>3.2. Results often get prioritised over individual player development</p> <p>3.3. Many academies are not quality assured</p> | <p>3. Football Development is more Accepted, but the Priority for Age-Group Development is Low</p> |

| | |
|---|---|
| 3.4. Players lack professionalism and knowledge | |
| 4.1. Development opportunities need to start earlier and be continuous 4.2. Some coaches believed that better coaches should work with younger players 4.3. Players also need more quality competition to develop 4.3. More play in schools would help development 4.4. Schools, clubs and JFA working together | 4. Potential Solutions at Age Group Level |
| 5.1. Facilitating individualised coaching 5.2. Consider the player holistically 5.3. Developing strong coach-athlete relationships is very important for understanding player needs and motivation 5.4. Continuing to educate coaches is very important | 5. Role of the Coach |

Table 6.2 Categories, themes and general themes emerging from the study described in chapter 6.

6.5.1 Infrastructure, financing, long-term planning and running of Jordanian football organisations

6.5.1.1 Administrators believe Jordan is doing well and patience is required

Administrator and coach interviews outline that given the circumstances surrounding the relative resource, facilities, and population, as compared to other countries such as Iran, Australia, South Korea, and Japan, Jordan is successful. Participant A2 highlights that world ranking is not the best sole criteria to judge success and developments because of this disparity in resource. Indeed, one participant describes how Jordan has outperformed other Arab countries who have comparable finance and infrastructure to some European countries. It appears that the available

resources are concentrated and utilised efficiently in places, for example, youth centres.

Participants believe patience will be key in seeing results improve over time.

“I think Jordan is a successful country. I do not consider the results or our rank amongst the other countries as the criteria in this regard since there is a huge difference between us and the other countries in terms of the facilities, the population and resources. Therefore, based on our resources and facilities, we are relatively advanced. Here, the association covers all the areas, youth centres, etc. We reduced the number of youth centres from 25 to 12 centres only to concentrate the funds better.” (A2)

“So audience in Jordan overloads us with all their hopes while we work within these limited resources and yet we are still able to achieve something. The proof for this is that, in November 2013, Jordan was ranked the first amongst the Arabs of Asia and the 5th in Asia, after Iran, Australia, South Korea and Japan; and then comes Jordan preceding KSA, Qatar and UAE whos budget and infrastructures surpass European countries. In the qualification with Uruguay, there was no Arab team taking part except Jordan, either KSA, UAE, Qatar or Kuwait. Always, speaking about Asia, it is Iran, Japan and Australia. So when Jordan comes after these nations, then this is s big achievement”. (A2)

“At Arabic level, we are the first (for women). At the Asian level, our rank is the 10th and the 50th internationally. Obviously, we are better than the ranking of the men but the number of men teams is bigger. Regarding the men, as you know, the Gulf is a big competitor (due to the facilities and abilities). But our position is not bad and we are improving. At the Asian level, we are something around the 30th rank and we are working to reach the finals. So generally, men are good as well and the improvement comes from the base and we need to be patient.” (A1)

6.5.1.2 Some believe that while financial stability needs to be developed, progress is happening

According to participants, the clubs have challenging financial issues. The JFA is funded by FIFA and the AFC, but these finances are limited, so participants feel it is not possible for the JFA to continue to expand. JFA possess sponsorships, but they are not guaranteed, and there are concerns if this funding stopped or changed. As a result, participants believe that the clubs must grow in size and independence. It appears that currently, JFA has to assist clubs in a way that is not common in other areas of the world. While the JFA fund is sufficient for the season with the salary restrictions JFA established, success is contingent on how the clubs handle the fund.

“Indeed. We suffer from this problem. We do receive funds from the FIFA and the AFC but these funds are fixed so how can we develop. We have sponsors but again they are not fixed and if their support stops what will happen? So the clubs have to get bigger and more independent. The associations all over the world don't support clubs the way we do. So the clubs have to take their role by supporting the sport and the players. The association should be just as a national image that represents the country and the load should be on the clubs and we should apply professionalism the same way it is applied worldwide”. (A2)

“Yes, the fund from JFA is enough for the season and for the salaries limits we determined. It depends on the way the clubs manage the fund. For instance, if a club signs contracts with 15 players at the maximum salaries, then the amount is not enough. However, the amount suffices other clubs while others manage to save extras even. To compare, in a country like Lebanon, the clubs there pay for the refs and for the playgrounds while here these things are free plus the 40K. No other association does what our association does and I'm not sure until when it will be able to provide this support especially in the absence of sponsors for the league, etc. So it is important that the clubs start to work independently”. (A1)

Some coaches describe that at the current time, adequate support is being given by the association. Importantly, it is reported that there are plans, funding, and financial assistance for the clubs, and everything is in place to support the initiative. In other words, participants believe there is a plan in place as well as a strategy for developing the sport's future. This will lead to a growth in the number of participants and success will follow.

“Firstly, for the planning side, when there is a plan and a strategy, this would support it. I can tell you that the women football in Jordan right now is supported because there is a plan as well as a strategy for building the future...I see that the stage where I am at the moment has the appropriate support from the association because it has planning, funds, accompanying the clubs financially and everything is available to support the project” (C4)

“Now, there are centres for promising talents. Now we have launched a process of supervising the age ranges of 11-14 y.o. to prepare the under 16 teams for international competitions form 2024. Then when this happens, we may go further down to start with the age range 9-11. Also, when we introduce football to schools, the number of participants will increase. There will be system and programming and we are ready for

applying it. We need no to widen the base of the sport. When this happen, the rest is easy". (C3)

6.5.1.3 Women's football in particular seems to be doing well and is well supported

Overall, according to FIFA World Rankings, Jordanian women's football is the best in the Arab world. This year's inaugural premium league for women has seven women's clubs for professional players. During the season, each club contributes 40,000 to each women's club to fund wages, technical teams, apparel, and other expenses.

“Let me tell you that women football in Jordan is number 1 in the Arab World. Not only is this in terms of the results but also in the development. As mentioned, the association covers all the costs and expenses. The current 7 women clubs for professional players are taking part in the first premium league for women this year in the country. We give 40,000 to each women club during the season (5 months) to cover the salaries for players, technical teams, clothing, etc, excluding external activities.” (A1)

It was reported that due to limited financial support, in the past there was unmanaged infrastructure that caused several issues. Coaches of women's teams were often given men's football strips for female teams. There were also issues with food, funds, poor quality stadiums and pitches and so on. Nowadays, the Jordan Football Association and the Ministry of Youth and Sports Ministry of Education manage this much better, including better quality pitches.

“Addition on that lack of financial fund, transportation and poor level of infrastructure were one of the difficulties that we have faced during our journey [in the early stages]. Furthermore, we used to feel insult when we given the uniform which for men and not for woman, that took fourteen years of following up and insisting to get proper uniform” (C5)

“The most difficult stage was the beginning, especially the financial issues for example food, clothes, and the place where I live in. Also, the stadiums weren't very comfortable, unlike now we have grass stadiums owned by Jordan Football Association and Ministry of youth”. (C6)

6.5.1.4 However, many coaches believe there is a lack of long-term planning, strategic thinking and financial resource for football development in Jordan

While some progress is reported to being made, some participants outlined that, Jordan is not set up for continued success. The participants believe that the perceptions of success have been amplified by the press. While there have been some good performance outcomes, there is concern that there are not the structures and systems in place to continue to develop talent to fill the shoes of those before them. The long term strategy, planning and finances are reportedly not in place.

“In my humble opinion, Jordan is no successful at all. Media has magnified the success. But if we would talk about the age ranges, they succeeded in the national teams and reach to Asia Cup despite the limited abilities; let’s speak about last 4 years, the world cup before 8-10 years. But regrettably, where is that generation that qualified to the world cup. We do not have long-term plan. We do not have continuity. Such as Vietnam and other countries. The coach contract in Jordan just until the Asian or the required mission is accomplished. So the coach doesn’t feel secure in their position.” (C2)

“Everything is built on the long-term planning. When we say “planning” we don’t mean only to programme a match, a league, etc. Rather, this is extended until [it reaches] the formation of the coaches. This thing in effect now is moving in steady steps. Speaking on female players. It also encompasses the formation of the players to be effective and well-formed. Unfortunately, in JFA we do not have the long-term planning.” (C4)

“Unfortunately, on the international prospective I can tell that we have backed off on both side men and female, were we hardly mention there due to the absent of having long term plans such as participating in World cup championship for example and the absent of expert coaches and management to have the same training mythology implemented over all clubs.” (C3)

The infrastructure team also argue that Jordanian football as a whole has limited financial resources, which prevents us from having the necessary skills, infrastructure, and organising contests for practise to become successful.

“The whole football in Jordan has limited financial fund resources which would not allow us to have the right expertise, facilities and organise matches for practice, camping, internal championships and etc”. (C5)

One of the administrator participants also raised the issue that most of the team players are not dedicated to performing and exercising on a full-time basis due to fact that they have to work to

support themselves. For more than 15 years, Jordanian football has been dealing with this problem. Only 2-3 full-time players can be found out of a group of 20. This is a key issue for long term development of football in Jordan.

“See, you are Jordanian and you know that the Jordanian players in clubs and teams are not dedicated as full-time players. Most of them are employees, in the army, etc and we have been suffering from this challenge for more than 15 years now. Rarely, you can get as little as 2-3 players out of 20 players who are on a full-time basis. This is because we don't offer full-time for the Jordanian players. You get them to play for a few hours a day and then go home to live his own lifestyle (eat. go to bed late, etc)”. (A2)

6.5.1.5 A lack of infrastructure is a barrier to implementing long term plans and goals

Interviews clearly suggested, to build potential in Jordanian sports, a good organization is required. Regrettably, the infrastructure is not present, but the clubs are licensed regardless. Participants believed that more autonomy and responsibility is needed by the clubs to develop their own academy systems, rather than relying on the JFA.

“Unfortunately, there are no proper structure to develop talent in Jordan, and proof of that historically none of the clubs have ball schools or academies under the same club due to the absent of the right structure...Eliminate the concept that Jordan football association establishing talent academies for clubs which represent a significant future financial liabilities on Union, while these academies should be established by the club themselves”. (C5)

“The professionalism is just only on paper. This benefited the players a lot but it wasn't studied well. The association saw Asia Champions. The problem is in licensing the clubs. The infrastructure is not available but the clubs are licensed, unfortunately”. (C2)

The stadium infrastructure on Jordan's stadium is reported as being poor, and much of it is artificial posing a significant danger of impairing or affecting performers' abilities in the long term and causes players to be prone to injury.

“The infrastructure of stadium on Jordan playground is made-up and not natural and that represent a key risk would impair or affect players skills on the long run as playing on made-up playground is easier than grassy playground which we can notice that a player is

getting tired so fast when they play on naturally playground and that due to lack of proper facilities and infrastructure for trainings. Addition on that, this would result more possibilities for injures”. (C3)

6.5.1.6. The consistency of support for development gets worse further away from major cities, but this may be a work in progress

The participants also indicated that the Jordan Football Association is responsible for the limitations in developing elite players equally across different regions of Jordan. Participants suggested that Jordan should have at least four Elite centres in order to create an effective development framework across the country. Nowadays, clubs have begun to establish football schools and talent academies, although their geographical spread is still limited to the kingdom's major northern cities.

“The Association is also interested in the talent centres but in a limited way in certain areas such as Amman and in North more than South and so on. So it is unfair and that’s why the association is responsible for the obstacles in making premium players”. (C2)

“In order to implement an effective development structure in Jordan, I believe we should have at least four Elite centres which are divided cross the country by considering fair geographically distribution”. (C5)

“Recently clubs started having ball schools and academy for talented player but still the geographical distribution of that its only confined to big cities at the north side of the kingdom and completely ignore the potential existence of talents in small cities and villages”. (C4)

Having said this, one coach believes that this is starting to change, where players are starting to train and play further away from the capitol city in Jordan. Traditionally, stadium preparedness and structures were not uniform throughout Jordan, causing a difficulty or hindrance for players who've been trained and brought up outside of the capital.

“Previously the stadium readiness and infrastructures were not the same everywhere in Jordan which was an obstacle or challenge for the player who was trained far from the Capital as they not use to play on these facilities before and may affect their performance,

thankfully, this obstacle or challenge start to disappear since the government begin with improvement for the stadium readiness and infrastructures”. (C1)

6.5.1.7 Support for club players and coaches is said to be poor or non-existent – including finances, transportation, equipment, training space – Salary

The participants also highlighted that there are numerous obstacles that restrict these institutions' capabilities, such as financial help for sportspersons. For example, there were reports that instructors are often not paid for months on end. Allowances to players are not given, instead, sometimes fruit is given instead. Reimbursements of costs take a long time to be processed. This clearly impacts motivation but also the practical ability for coaches and players to function and train effectively.

“However, there are some challenges that exist which limit the ability of these centres, such as the financial support to the players and coaches. Especially if the coach does not take his salary for two to four months this defiantly will impact his desire to train a new player and give him all the best he does have. In addition on that, previously the player used to receive some allowance on each game they played not to consider that 3 JD on each match in are not that attractive but even this has been stopped due to limitations, but instated of that they give some banana, apple or the coach will bring some food for them and then claim for the club and that will take ages to be reimbursed”. (C1)

“Also, the coaches’ salaries which they don’t get most of the times. (Up to 6 months) and myself included. The association should deduct part of the budget of each club for the salaries so that the coaches get paid by the association directly. I sometimes pay for transportation from my own pocket and give players from my own pocket”. (C2)

It was made clear that there are challenges with coordinating education and football for young players. Football is not considered a professional choice and as such it is not treated that way. Many players must secure additional employment to support their football development which causes challenges and clashes. If a player is injured, this usually has a big negative impact on their career progression due to the lack of available support.

“The challenges, as I said, we struggle with players who are still in education due to the clashes. So implementing professionalism is the solution to this problem. This allows players to focus more on their new career, i.e football. The problem is we still not socially aware of the concept of football professionalism. That's why the players try to secure an alternative source of income to support them in case of premature termination of their football career due to injury. This, of course, affects their development in their career”. (A1)

6.5.1.8 Transport allowance

Following on from above, the participants outlined a key issue facing TI and TD which is transport, transport allowance, and the ability for players and families to fund getting to and from training. Many families do not have enough resources to financially support their children to pay to get to and from training. Some clubs provide an allowance for this, or arrange other help such as transport from drop off points. However, it is clear that this is not enough given the economic circumstances in Jordan and this problem impacts the ability to deliver effective training on a consistent basis to many young players. Often training is cancelled due to this issue.

“Firstly, it is the financial support. Transport allowance etc. e.g. some clubs pay 3 Dinars / training session, other clubs pay 1 Dinar. We don't give transport allowance. The players at our club attend out of their love to the game and (2) for the future career. So financial support is highly demanded. Even A faisaly club doesn't pay. Only Wehdat and ALshabab used to give to what I know of. We give the uniform and we provide a coach that picks them p from an assembly point and return them to the same point”. (C2)

“Addition on that, the availability of transportation from the club to players house and other cities was one of the limitations which usually result a cancelation for the trainings”. (C1)

“See, there is a financial crisis worldwide. When the parent is an employee whose salary is just enough for his family, sending a son to the training would cost him a lot. Consequently, the son will either miss the training, or will borrow money to pay for the transport. Our playgrounds are near the airport, so it takes time to get there from other places such as Zarqaa, etc. Our Coach's assembly point is at Al-Dakhleyeh roundabout. But it takes time for the players to get there and thus the travel is time wasting and exhausting process. Therefore, we rent ALhashmy ground for two days and the clubs ground for two days so that each player can attend for two days at the ground closer to their places. This is very important in order for the players to cope with the training. When they finish school and come all the way to the training without eating and then go all the way back home, then how can they manage for the training next day”. (C2)

“There was a recent story. A player in the Youth National team with no transport allowance (we sometime can provide some allowances for the distinctive payers from donations). IT was also Ramadan and in a transitional stage and there was no training. But that time the allowances stopped for the association so the players talked to me and said that he would go for work from 8 am from his far away home to earn (5 Dinars) so that he can use it for his transportation from and to the training with the national team. And then return 2 am after Iftar in Ramadan exhausted and unable to wake up early next day for work. I told him I’ll walk past your home tomorrow to give you some money so that he could have rest for a few days with no need for work. So sometimes the psychiatrist can’t help when this problem is financial only”. (C2)

6.5.1.9 Equipment & Training

According to the participants a lack of equipment and training, it has been discussed so far that if transportation is not available, they should at the very bare minimum supply appropriate equipment such as cones, balls, and a gym, among other things. As a result, coaches may provide a proper atmosphere to recompense the participants. There is also a playground that is available on a daily basis. Coaches presently have a one-day venue and renting facilities. Due to budgetary constraints, most groups usually train three days per week rather than six. In comparison to other countries, such as England, progress has become a relative concern.

“If there is no transport allowance, so at least they should provide proper tools such as cones, balls and gym etc. So we can compensate the players by providing a suitable environment for them. Also, a ground available everyday. Currently, we have a ground for just one day and we rent grounds. We do so to support the psychological side of the players who i.e. to train every day”. (C2)

“Here in Jordan, the development represents a small and short portion. The reason is that most clubs suffer from the financial side. Therefore, they would train 3 days instead of 6 days a week and they would provide 20 balls when 30 is required. Thus, the development has become a relative matter”. (C2)

6.5.1.10 Financing treatment for injured players

Participants reported that when a player is injured, the organization often are unable or unwilling to pay for care. Families are also unlikely to be able to afford or take responsibility for this support. One participant suggested that health insurance should be made mandatory at all clubs.

“When a player is injured, the club says that they can’t afford his treatment and his family say it is not our fault that he injured while playing plus they can’t afford it either. We had a case three seasons ago, when a player (Mosab Salim) had a [cruciate] ligament injury (I wasn’t coach back then) and the club couldn’t cover all the treatment cost so he left football because he couldn’t afford treatment. So health insurance should be compulsory on all clubs”. (C2)

6.5.1.11. Progress and promising plans have failed due to poor club management, lack of administrative expertise and financial support (*Poor management and lack of resource*)

Participants outlined that the majority of the world's top level players begin their careers with a successful institution that provided them with the necessary training and guidance. However, owing to inadequate management and planning, weak administration, an inadequate knowledge, and financial support, these types of development centres in Jordan have not been sustainable.

The participants also believed that part of the support of such centres is to give coaches the autonomy to use and distribute higher level resources as needed.

“For the promising center and club which was started by one of the most famous trainer / coach in Jordan Mahmoud Al Jawhre in 2005, that was representing an incredible idea, as most of the international and famous players in the world who took world-cup, they have started with an promising club since that give them the right training and direction with short period of time. These centers have started correctly and focus on the younger players and develop their skills and abilities in order boost them to be an Elite player. But later on these centres failed due to poor management and planning, weak of administrations as well as lack of experience and financial support”. (C1)

“If I got a chance to be in an effective position, I will do my best with other governmental parties to establish a fund resources to support the Jordan football association let’s say deduct five cent on each cigarettes pack sold, energy power drinks, alcohol and etc. as our resources are limited”; (C5)

“The coach should be given the required authority as well as the financial and the administrative support (in terms of the supplies for the training and transport not to give the coaches money”. (C2)

6.5.1.12 Need to improve working relationships and clarity of roles within clubs and removing corrupt influence

Another element that was highlighted to weaken TID development in Jordan, though within the clubs sphere, is corruption. In certain clubs, the perception of one participant was that administrative tampering can occur a significant proportion of the time, favouring players whose families may be in an important position in the country. People in the association were reported as utilise contacts and favours to improve selection chances. Additionally, the participants reported that typically club administration and management lacks expertise operating a sports club and is linked to corruption.

“Honestly, the administration intervenes to put pressure on the coaches to take certain decisions. This varies from a club to another but this intervention exists. In some clubs this can go up to 40-50% in issues like including some players whose fathers could be in an important position in the country or due to the sponsorship. In the association people use connections to get into the national teams”. (C2)

“The problem comes from the fact the administrative team is not athletes so they do not appreciate the requirement of certain sport activities. So it is better when you deal with an administration team who are ex-players. This can also be added to the challenges”. (C4)

“Also, the administrative corruption represents one of the main factors of obstacles or challenges that face a successful talented player in the Jordanian clubs”. (C1)

“Lastly, not to forget the misleading management which clubs have, who usually do not have any experience with managing a sport club and their existence is linked with corruption”. (C5)

Following on from above, not only can there be a lack of expertise and evidence of corruption within the club system, the participants outlined that there can also be a lack of role clarity or at least occasions where roles are interfered with inappropriately. Examples were given by participants related to administrative teams leaving their roles because coaches were interfering. Similarly, examples of administrators interfering with selection or being criticized overtly for game decisions.

“We touch upon these issues from what we read in the newspapers. You can notice that a big number of the administrative teams left the teams because the coach intervened in their roles. For example, in some matches the administrative team can intervene by asking the coach to make a change (in the players). And we noticed a similar incident while attending a match in the Jordanian professional league. The club manager shouted and swore at the coach to substitute one of the players. This is a blatant model of the role-mixing within the teams when everyone should be committed to their roles”. (A2)

“The managing aspect is in a great shortage. Not only is this at the level of the clubs but also in some national teams. I have friends in some Arabic national teams where the role of the manager of the team is just a 'decorative' one and the rest of the roles within the associations could be for non-Arabs; which is not right. The administrative manager can attend the training only sometimes and leave to the coaches or their assistance and this is wrong. I am of the view that each one has their role and if each one works more on this role, they develop more. When the coach does so, by only focusing on training, they will develop more and will look for other aspects to develop within his field. Same with the managers. But, unfortunately, in some clubs, people mix roles”. (A1)

6.5.1.13 Important to have the right expertise and staff

Participants reported that a range of expert input (e.g., coach, assistant coach, physiotherapist, administrative office etc) is necessary. One participant felt that this needs to be coordinated by the administrator well, otherwise development will be inefficient and ineffective. Having said this, while it is deemed important, it appears clear that very few clubs have resource such as fitness trainers for example.

“We can do everything in this regards to help improve the current teams the help in the development process. As I mentioned, a while ago, we would visit different clubs to see the level of physical fitness. Just 3-4 clubs have fitness trainers. As you know, Dr Ghazi Al-Kelani, was working intermittently with the clubs due to the notion that the clubs have which is that it is only important to have a coach, a coaching assistant, a therapist and an administrative officer (better be an amateur and not necessary to be in every day). And this is the mentality that you should work on developing it. Every member has their role that should not be neglected or ignored. In the past, I used to tell them that I think the administration role is from the most important roles. If it is imbalanced, all the other aspect that they worked on for the match could [go in vain] and they may lose the match. So if the managing person was not qualified enough. then all the technical, fitness, medical and other efforts; all would fail”. (A2)

According to participants, the presence of a psychological specialist in the club (which is not present in any of Jordan's clubs) is critical in order to improve player skills and knowledge. It is also important to help players manage the many stressors and tensions that are likely to exist during their development journey (e.g., financial, social, school related concerns). Currently, this type of support role is left to the coaches.

“The availability of psychological expert in the club (which not available in any of clubs in Jordan) as he can spot many issues with players by observing the way they played in different matches in, also facilities and equipment’s are very important to boost the player skills and interest. Considering the limitation of resources with club, I always stay close by to my team player to keep a good connection and provide them with any kind of supports they might need and keep following up with them to maximum I could”. (C1)

“I think the psychological coaching is as important as the technical director. We, as coaches for age ranges in Jordan, work as psychological therapist is more than as technical directors; in order to help the players forget the social issues that they may have from their homes. So this aspect is important to relieve the tensions from financial, social, or school-related tensions”. (C6)

6.5.2 Football is popular, but family/cultural support for football development as a career is poor albeit improving

6.5.2.1 Football is popular in Jordan

One of the administrator participants described how football is the most popular sport in Jordan. While this sometimes spills over to negative consequences (e.g., violence), in the main it appears to be positive and highlights that the country is accepting and interested in supporting the development of a successful national and club teams.

“Let's start with men football. Football is the No. 1 popular game in Jordan and even part of fanaticism, racism and tension in Jordan is linked to football. This is a positive and negative thing at the same time. Negative when it turns into violence and fanaticism and positive because we need support. As we can see, the whole world is moving towards sports. the whole world awaits the champion league and the World Cup and FIFA is one of the richest organisation in the world and this is a thing that we can see in the

association and we can see the influence of football within the country (e.g. when there is a game between Faisaly and Wehdat). So we do have a football-accepting culture”. (A1)

6.5.2.2 However, parents want their children to have a financially stable future, football isn't perceived to offer this

The results show that most Jordanian families are focussed on ensuring their children gain the correct education and preparation for successful employment in mainstream careers (e.g., engineering, accountancy, business administration), than they are about helping their children pursue a career in football for example. This is partly the cultural attitude, but also because there is much uncertainty about following a sport career.

“Previously, due to shortage of football professionalism and the absent of financial benefits in it which could support a player to cover his living cost in the future therefore, parents usually more toward the academic certificate such as engineering, accounting and etc. to have more secure financial resources for living”. (C5)

“I had an experience with one of the player who clearly mention that he need to go with his father to help him work, I tried to provide some kind of support from the club and he was so happy to hear that but unfortunately the club was able to provide some financial support for a short period where once it stopped he could not keep up”. (C1)

“We have a very distinctive player. But his father wanted him to focus on his studies. We communicated with the father to convince him that there would be no contradiction between studying and playing and we gave examples of other players. However, he insisted that his son should stay away of football until he's done with his high school education”. (C2)

Due to financial issues and the associated costs of supporting football development, it was made clear that most players are worried about how they might support their families financially. There is also clearly pressure from families for young people to help by working and bringing in income to the family.

“The most important is the financial support (including salary, allowance, equipment and other benefits). Also taken in consideration the emotional and psychological parts for the player, as some of players situation does not help them in case they need to help their

parent and support the family, once they reach to age 16 or 18 years old they would start providing support to them and the father might not approve they go to play football as he needs him to work and support”. (C1)

“First, there are no salary to be paid for the players which is consider as the main disadvantage specially if a player would like to take football as career and to generate some source of financial income”. (C1)

As seen above, there is concern about the risks associated with pursuing a football career in relation to the trust that it will be fruitful. Without the financial assistance and support during the development phase there is very little chance of young people and their families considering supporting the pursuit of a football career.

“The financial resources available which required for the development on each different aspect. Also, some parents culture and prospective for football game as they do not trust the future career of a football player. E.g: I had two perfect and skilled players who were training with me previously, however, their parent who was retired from Jordanian army as Eyes Doctor, their father explicitly says I want my children to finish their education and be a doctor as me in the near future so they can afford the cost living for themselves and their kids too. Even that I told him that his kids are talented with this game, however, he response to me as if his kids get injured what you can do for him especially if his injured is significant and cost a lot insurance might not cover that or cover the after injured cost. This would mean my kid future is lost and left speechless in front of him”. (C6)

“I would say that the financial support is an important key factor to consider as this will result that parent and the player himself would consider being a football as it’s a career offer him financial sources to support covering the living cost. Additions on that have the right equipment, facilities and training programs”. (Financial support C4)

Due to the pressure on gaining the correct educational qualifications, high school year is particularly prone to football drop out due to the pressure to study and take exams. However, as one of the participants highlights, young people can gain high level qualifications and keep their football development on track as well. As such, parental education and support around this issue would likely be useful.

“On the other hand, the last stage of the high school usually is one of the obstacle or challenge we face with player as he cut out practicing and training for studying

commitments while the training does take two to three hours a day and the parent in some cases stand against this as they wish that their son need to get educated despite the fact this situation relies or depend on the player himself as I had one player who finished the high school recently without skipping the training and he scored 96%”. (C1)

6.5.2.3. Attitudes are changing, but more education and support is required

While some of the themes above have clearly identified that families and parents are generally not supportive of a child pursuing a career as a footballer, the participants highlight that this attitude is changing. With the emergence of clear examples of success and the large earnings of top football players, attitudes are starting to shift. Recently, with parents becoming more conscious of sport/football player employment prospects, some parents have grown more supportive of this; nevertheless, this progress is limited to Amman's capital area and does not apply when coaches travel outside of Amman. Participants highlight that more education and awareness raising is required, particularly outside of the capital city.

“In the past and until the year 2000, the culture that families looked at football as a hobby, this has changed now and families started to realize that football can be a profession and not just a hobby. It can provide earnings more than the [the earnings] of the best doctors in Jordan. We have players in the senior team who get paid more than \$50K per month. Those who professionalized abroad and this is what they deserve. It is an acquired right because the players worked on [developing] themselves and they proved that they are able to play in respectful leagues such as Qatar, the Emirati or the Saudi leagues”. (A2)

“Recently, with parents being more mindful about sport / football player career the prospective has changed and some parents become more supportive to this, however, this improvement confined across the capital areas Amman and that do not exist when we move away from Amman”. (C6)

“Organise more workshop in order to educate parents and society to improve their prospective and knowledge about sport and football as professional career”. (C4)

“Also, to raise awareness amongst the players' families about the daily routine of the players (when to eat, when to sleep, etc.)”.(A1)

6.5.2.4 The acceptance of female football has been much harder to find support in society

The interviewees outlined that football as an activity for young females is wholly denied culturally and in many circumstances is viewed as bringing shame upon families. From the interviews, it appears clear that the majority of families are opposed to their daughters playing football, which leaves girls who are successful having to play and train without their family's knowledge. This of course brings its own challenges from logistics to finances. Even with this backdrop, female football in Jordan has achieved significant success and support at the highest level, which it is hoped will start to change cultural attitudes more broadly.

“I have noticed that in many occasions that parents are against their girls when it comes to playing football as they see it a boy's game, therefore, many of them used to come for a game without telling her family plus suffering to pay the transportation cost from her saving rather than getting her family support to cover that. Also, many other have left the school to play this game”. (C5)

“As I told you at the beginning parents refused the idea of having their female kids been part of this game (Blemish culture), it took a while to convince the community / society to accept this idea and thankfully we had our first female team to appear on the map in 2005. In 2007 I have trained the Women Olympic club which contains four teams so far”. (C3)

“For the past 12 years, I can tell that we see a good achievement when we look back to the start point not forget Prince Alin Bin Al Hussein contribution in this process. Specially that we faced society shock at the beginning where they refused the idea of having a female participating in a football team/club and try to convince their parents to allow them. Thankfully today the Jordanian female team is crowned as West Asia Champion and we are looking forward for more success from our team since we count on them to reach Asia cup and world cup too”. (C3)

Evidence of this shift in attitudes is highlighted as quite tangible with the opening of female football clubs in different regions of the country, as well the hosting of the world and Asian cup for women in the country.

“As for girls/women, the public attitude has changed a lot. In the past, there was a rejection as well as loads of criticism and less awareness about the matter. But has changed, especially after hosting the World Cup and Asia Cup for women. They realised

that women football is more than women wearing certain clothing or running in the playground. They realised that they are able to achieve results better than men's results. So there is a football-accepting culture, regardless of the gender of the players. For instance, last year in AL-karak, and you know what AL-karak and Ma'an mean, a women football club, Shehan FC, was opened, which indicates how the attitude in Kerak has changed in respect of women football. Also, Aqaba has an FC, the north". (A1)

6.5.2.5 Gaining more acceptances has required hard work and influential people (Prince

Ali Bin Al Hussein influence and work)

Perhaps, a key influence on the shifting attitudes and resource allocation to female football is the role of Jordanian Prince Ali Bin Al Hussein, who has been promoting female football clubs and pushing families to encourage their daughters to join a team, hence increasing the number of female football players. Commercially, it was highlighted that sportswear companies and designers are now producing sportswear for women who wear a hijab, which is a substantial improvement from banding hijab-wearing athletes to global acceptability. Similarly, Jordanian Prince Ali Bin Al Hussein was instrumental in convincing FIFA to allow female footballers to wear hijab on the field.

“Prince Ali Bin Al Hussein did not only help the Jordanian female clubs but helped out female clubs in the whole Arabs region and encourage parent to allow their girls to participate in a football team which increase the number of female players as well. Not to forget that sportswear company / designer now produce sportswear for women who wear Hijab which consider being qualitative shift from banding players with Hijab to worldwide acceptance”. (C5)

“Prince Ali Bin Al Hussein force FIFA Union to accept the idea of having female players wearing their Hijab, this role did not only help the Jordanian female clubs but helped out female clubs in the whole Arabs region and encourage parent to allow their girls to participate in a football team which increase the number of female players as well”. (C3)

Significant shifts and compromises needed to occur to support female football globally and be sensitive to cultural and religious needs. For example, participants highlight that in Jordan, while there are just a few Hijabi players, in Iran, all of the athletes were Hijabi. Females were

originally not permitted to wear a hijab during games, according to FIFA, since it is a religious sign, and FIFA had already outlawed all religious displays at that time. However, Prince Ali gathered proof showing hijab is a significant aspect of culture instead of a "religion", which again provided the influence needed to change attitudes of powerful organisations.

“Yes, indeed. Some families are conservatives and they may want their daughters to wear hijab. So it really helped convince them to allow their daughters to play. It was really good to see girls keeping their traditions while playing. In Jordan the number of Hijabi players was limited. However, in Iran, all of the players were Hijabi. In 2013, FIFA announced that women are not allowed to wear a hijab during games because, firstly, it is a religious symbol and the FIFA had banned all religious symbols by then. Secondly, because it may cause harm to the players (e.g. cause suffocation or allow others to drag them from the hijab). Of course, the first one to stand against the decision was Prince Ali. He worked on collating evidence that hijab is important and a part of the culture rather than a "religion". He managed to get them to change the decision after imposing it and preventing the Iranian team from playing one match. And this was the first match with hijab. Later, we started seeing those companies such as Nike and other producing hijabs without any other 'materials'”. (A1)

6.5.2.6 Outreach and education initiatives

The participants highlighted numerous influences and potential barriers to female football being accepted and supported within Jordan. For example, encouraging Jordanian universities and schools to coordinate school with sport to avoid clashes will be crucial. Also, the participants believe that better outreach outside of the main cities to education and raise awareness is important. Of course, continued efforts to engage and educate the families themselves will be instrumental in shifting attitudes where it matters, at the heart of support for the children.

“However, if we move a bit from the capital Amman going toward small towns / villages the challenges are still there due to combination of society of there. I would say if we have done more conference and festivals sponsored by the Jordanian FIFA Union that could draw attention of community layers to accept this idea of having female players and not to forget the female physical structure compare to boys players”. (C3)

“But Ma'an is not yet. The reason I mentioned Ma'an is that back in the days we approached them to arrange for a school league for girls. But there was a school abstaining. When we explained that the whole thing will take place in a covered

playground and no male will be allowed in, they accepted. This shows that the objection is on the mixing between genders rather than rejecting the concept itself. And for me, this is an achievement to get people to accept women football”. (A2)

“Also, social support, especially for women. We visited many families to convince them to allow their daughters to join the teams. Prince Ali himself intervenes to liaise with schools and universities to postpone exams that clash with the matches, etc”. (A1)

6.5.3 Football Development is more accepted, but the Priority for Age-Group Development is Low

6.5.3.1 Age group development low priority

Participants revealed that while there is more interest and resource of successful senior teams in Jordan, there is a lack of support and organisation for youth development within the sport. The interviews revealed a perception that there is not enough financial resource provided to this stage of development, or good enough facilities and pitches. Changes are slow to come, and there is even a very minimal celebration or awareness of any success at youth level. This inevitably results in lower numbers of participants and quality of development.

“The legal umbrella for all clubs is the association. If the association does not provide the factors needed for the development, no matter what you do as a club won’t be enough and will go in vain. Why? Because the association has a high budget and high-profile sponsors, e.g. the Arabic Bank, Al-manager company etc. However, when it comes to the efficiency of the champion team of the age ranges [its award is] 5000 Dinars, which I spend in a month or two. The news of the victory is not published on the association website (this is needed to show that there is an interest in these age ranges). The playgrounds provided are not fit for purpose (don’t have water or the subs seats). So the association has shortages in regards to the players/cubs needs (ages 11-21). The association, however, is interested in the women football in an unprecedented yet extraordinary way (a lot of money and support from the international association and FIFA)”. (C6)

“To be fair in during prior years there was some development but unfortunately these developments are unorganized and process slowly. Considering female football players, we are ranked as number one due to the amount of development put into place successfully. Addition on that, I would like to highlight on an internationally ranking for Jordan rank unchanged since 2005 which is 62 till date which emphasis that we are far away from professional football player as result of not taken the young age group players

seriously and completely forget it's the basis of any successfully international professional football players. Also, limited program for player professional and the fact these programs linked with Ministry of Young in Jordan who has limited fund resources and always looking for sponsorship to fund these programs". (C5)

Even at the club level, the first team is treating very differently to the age groups. Age groupers do not have access to the equipment, grounds, facilities, or technical and administrative teams that are available at the club for the first team. As mentioned above, there is very little media exposure for the various age groups.

"Yes, of course there is difference between trial and the training of the first team of the club. Firstly, the first team in every club has the first priority. Age ranges always come next and this is normal. However, tools, grounds, training time, facilities and technical and administrative teams that are available for the first team are not available for the age ranges. If the first team asks for example to take the ground from 5 o'clock on, they will have longer time. As for me, I will have only one and a half hour to training including the warming up, the tactical aspect so in this case the first team squeezed us in terms of time. I can only get one age range in a non-holiday days so that two age ranges will take a break that day. Accordingly, the challenges are that we are always that have to share the same one playground and the first time is always given the priority due to its year-round competitions. I have 20 balls only while the first team has 50 balls. The type of ball is different as well. The first team drives all the way into the club while the age ranges players have to walk from a place to another, or take transport, etc, and so do they do in the way back and so on. This causes tiredness along with schools, social and financial aspects which result in decreasing the training times". (C2)

"The media support. Here in Jordan, we hardly have any media coverage for the age ranges. Even the limited coverage we have could sometime have wrong results or mistakes in the teams' names. Here at Al-Jazeera club we try to make up by the audience and the supporters who attend or support on social media platforms". (C2)

6.5.3.2 Results often get prioritised over individual player development

According to the one of the participants, there is a significant focus on success outcomes as opposed to player development. This results in criticism and pressure on coaches to win games rather than give development opportunities to younger players. This is quite a typical pressure in

many countries and sports around the world, but it is another factor that is a barrier to effective development.

“The club should allow the coach to work independently without interventions. Our focus should be on the players taken to the national teams not on the matches’ results or the championships achieved”. (C2)

“Another important thing I’d like to mention and I mean it a lot. When I get 16 year old to play against the 19 team, so I’m developing by doing so. However, this risks losing the match. When you lose you get blamed and hence the focus on the results put off the coaches of focus on development”. (C2)

6.5.3.3 Many academies are not quality assured

The interviewees outlined that most training institutes are not controlled by experienced and professional coaches. It was reported that several academies around the nation are running with insufficient and inadequate supervision, some of which are not approved or registered with the Jordanian Football Federation. Furthermore, many of these institutes are reported not to have qualified instructors. Another challenge highlighted relates to the pressure on academies to prioritise business as opposed to player development due to the private nature of their operation.

“The existence of different academies in the country with no sufficient and proper control / supervision which is in some circumstance not even approved or register with Jordanian Football Association. Also, these academies do not have a quality trainer and sometimes they just a normal players with no experience in coaching”. (C1)

“The Jordan football association must oversee the progression of all private sport academies that established in the country, to ensure that these academies are operating in the right way which matches with their principle activities and not the pursuit of making more profit and disregard their vision to run it as business only”. (C5)

6.5.3.4 Players lack professionalism and knowledge

According to coach three, there is a general lack of knowledge amongst players in relation to nutrition and recovery techniques. This is of course a cause for concern with regards to the players looking after themselves effectively and minimising injury risk. Furthermore, there is

concern amongst participants about the general levels of professionalism amongst players and the system which supports them. For example, the wages are low, and are often not even delivered. Players have many bad habits such as smoking, and lacking routines etc. All of this contributes to ineffective talent development progress.

“Furthermore, most of the player does have lack of knowledge about their diet system and quantity of water they should drink during their training as this might increase the possibilities of injury due to the nature of playground they are playing on”. (C3)

“Professionalism is just by name. Just 4000-5000 Dinars for the players which he didn’t even get. There should be a maximum and a minimum amount for the salaries. Even players do not have the concept of professionalism. Once they finish training they go smoking, etc”. (C2)

“Yes, and we should raise the players on the culture of being aware of the precautions and the routine that players should adhere to. Here comes the importance of implementing professionalism even at young ages. Bad habits like smoking can reduce the career lifetime of the players”. (C5)

6.5.4 Potential Solutions at Age Group Level

6.5.4.1 Development opportunities need to start earlier and be continuous

Participants highlight that Jordanian football players begin training at the age of 13, as opposed to those other Middle Eastern nations, whereby they begin at the age of nine. There are many reasons for this. However, again it is considered a barrier to success, and means that young players often do not have the basic skills in place before they start proper training. Improving depth and consistency of youth players training, as well as the progress and way they affect their clubs, are the most essential variables in their improvement.

“Here, we get player at the age of 13 while in other countries they get them at the age of 9. So players lose 4 years of their training lifetime. So here I Jordan we are behind, even though the “material” of the players [we have] is not available in elsewhere in the Middle East as a result of the geographical location, the climate and diet”.(C2)

“The absent of young age group attentions by the JFA which result not to have players with age less than fifteen years old and those who consider as promising layer and loss

the chance to teach them the basic skills and ensure to practice it very well such as passing, receiving and etc. which really hard to build on a later stage”. (C5)

“Perhaps, one of the issues we do have that in Jordan coaches start with player in the age of fourteen where we should start away earlier than that to build his or her basic skills and techniques which hard to build on at a later stage”. (C5)

“Therefore, the most important factors in developing a junior player are the continuity, the training lifetime (the longer the training lifetime, the better and faster the development and the more they will give to their clubs)”. (C2)

“The most important factor in Jordan is the continuity in training. (2) The training lifetime. Why I only see players at the age of 15 while the talent starts at 11-12 or even 7-8. Now, the association had postponed the new season until 2/2020 and now we are in 6/2019 and the season ended in 4.2019. That means that players don't play for 8-10 months. Clubs will call their players back in 10/2019, so for 6 months the players do nothing. Therefore, continuity is very important. Even the Age ranges are stopped now, and we work now on preparing the call and parallel team that contain the best players of the three teams so we will have at least 30 players ready instead of 60 to work this in this period of suspending the playing”. (C2)

6.5.4.2 Some coaches believed that better coaches should work with younger players

The interviewees believe that using the best coaches to train younger players can help to boost their skills, their passion for the game and set the foundations up effectively for future progression. Typically, coaches have to help older players learn skills they perceive they should already have at an earlier stage. Furthermore, this lack of prioritisation on younger age groups is typified by the distribution of money to players which often focuses very much on first team players.

“Also, we should always bring the best coach to the younger ages as they are the ages that need special care but sometimes it goes the other way round. Moreover, to improve the talents, the association should increase the 5000 Dinars reward and to make sure the reward is given to the players of the age ranges as usually these rewards are given to the first teams”. (C2)

“In my opinion, the younger is the player is the more that he requires an advance and professional coach to train him, teach him and lunch his talent to have the right skills and utilise his abilities to maximum level. Taken in consideration position and experience I had to focus on these teenager basic skills such as how he does receiving the ball, running with ball, looking over-shoulder to see who behind him and pass it over either sole or heel to another member of the team. Addition on that, we consider while training these

players establish a passion for the game and love it as path by giving them different exercises and motivate them and enhance their stamina level”. (C1)

“Recently, I have spent significant amount of time in order to train players with 16-year-old on their basic skills (passing the ball, receiving and etc.) due to the fact they only play at school with no proper training given to them. where they should be already passed that level and working on more professional / advance skills”. (C1)

6.5.4.3 Players also need more quality competition to develop

Participants highlighted the need to improve the quantity and quality of competitions across age groups. It was also recognised that competitions need to be used to help players develop, for example by playing players up age groups when appropriate to improve the quality of the experience for the player. This links to a previous theme highlighting the pressure to achieve results over and above provide good development opportunities for players.

“I’m going to take you through the current experience in Al-Jazeera Club. I’m against the view of bringing a 19 year-old player to play in the under 19 team and so on. I’m of the view that players should play with the higher age ranges so that they can develop faster”. (C2)

“Secondly, the timing of the championships is not suitable as discussed before. And the association has to change it. I hope we can play for 9 months a year with only 3 months as a break. To should also add a Cup championship beside the league”. (C2)

“Activate the championship system to have more interactive and competition in the session with different players to increase their practice” (C5)

“With the fund above, I will force the clubs to establish ball schools for their players and organise championship between different clubs with cost covered from this funds”. (C6)

6.5.4.4 More play in schools would help development

Coach two highlights the lack of skills in older children is partly due to the lack of opportunity at younger ages. Improving the focus of opportunities at school and also the length of time training opportunities are provided for would be important to give a wide range of children opportunities to develop at younger ages.

“The technical challenge. When I have players at the age of 11-12, so where were they at the age 6-11? We should focus on the age 6 -8 so that we gain a few years more in the training lifetime which will improve the talents. Even if there were sports at schools, this won't have a big impact due to the short time given at schools for such activities”. (C2)

For this to happen, participants were highlighting that schools need the support from Governing bodies and Government for example, JFA and Ministry of Education. This includes support with education and awareness, facilities, equipment, student numbers, and time to dedicate to training opportunities.

“Focus more on school football games as there where talent is born and taken care of by having more workshops and provide them with right facilities to have coordination between Ministry of Education and Jordanian FIFA Union for both genders”. (C3)

“We should have more attention from Education Ministry to school sport as its where players talent born and well maintained. Also, they should provide us the governmental schools with proper facilities, equipment and number of students in sport class. Addition on that, they should focus more on the context of sport class too”. (C5)

“If I got a chance to be in an effective position Activate the role of schools sport in order to be more effective, efficient and sufficient to develop talents at the earliest stage which currently given once a week and might be a real sport practice”; (C6)

6.5.4.5 Schools, clubs and JFA working together

Participants revealed that in the past, clubs would select players based on school competitions. However, there has been a shift where school teams are now formed of those children who are already lucky enough to be in a club. Therefore, potential talent and participants without the opportunity to play in a club now do not have the opportunity to be inspired or selected to a club from more informal school opportunities. The integration of the schools, clubs and JFA working together is required to make the system more effective and open to more children. However, to date, according to the interviewees the JFA seem to be resistant to formalising such a relationship through sport schools for example.

“In the past clubs would follow championships at schools to choose players. Now, the teachers at schools choose the players in the schools teams from those who play at clubs. So now schools at streets do not provide players and they waste time of the training lifetime of the players because the players come late to the clubs”. (C2)

“Even in schools, unlike the past when we would choose players from schools, the teachers now take the children who already in clubs”. (C4)

“There was an idea I was told by Dr. Balhassan Baloush, the former general director of the association, which he wanted to establish a school where a player can study, train, eat and sleep there. He studies the feasibility of the project but Jordanian football Association didn't agree on this which could have helped develop the players”. (C3)

6.5.5 Role of the Coach

6.5.5.1 Facilitating individualised coaching

Participants reported Individualized training is almost non-existent. The reason for this is that coaches only have very limited time with payers and have large cohorts to train at the same time. It is important to recognise that some older players would receive position specific work, but it does not appear to be enough. This is a challenge that many sports across the world face, an inability to provide or lack of realisation of the importance of individualising training.

“The individual training is nearly non-existent. The reason is that we have a ground available for just 1 and half hour for 30 players, how can you manage? I do my best, however. Players under 17 and 19 would receive some of this training by focusing on duties related to their position in the playground (but this no more than 10 % due to the time limitations)”. (C6)

The interviewees also argue that the notion of the organisation is crucial at the outset because when coaches begin the intellectual and other preparations, everything will be simple and there will be no justifications. However, in Jordan, the majority of coaches lack the expertise and experience necessary to develop programmes and provide individual instruction. The task at hand is to assemble a strong team with people who possess both talents and discipline. Participants reported that it is important to place a greater emphasis on the person, position, and

individual responsibilities, as well as collective responsibilities and strategies as players get older.

“When you train a national team, as a trainer you should control all these factors (sport, social or exceptional such as medical etc). As we said before, in the preparation, we should know the abilities of each female player and to know each player and the best way to deal with her. Yes, these are challenges and we have individual differences, so if you have 25 players, we should have 25 different programmes. Each player has her own programme. This will build confidence between the coach and the player. Thus, the player will have self-confidence and will communicate better with the coach and the other players. The challenge is to build a strong team whose members have abilities and structure. The principle of structure is important in the beginning so that when we start with the mental preparation and other preparation, things will be easy so that no excuses. But in Jordan most of coaches do not have knowledge and experience how to build programs and give individual training”. (C4)

“Training is approx. 5 days/week. Each age range is given what it need through their coach. As I mentioned with young ages, the focus is on loving the club and the game. Get him to spend the longest possible time in touch with the ball and get him away of any tension-causing things such as win and loss. As you go up with the age, we focus more on the individual aspect, position and individual duties as well as the group duties and tactics. And the distinctive players are promoted to the higher rank and so on. This year I got 16 players to of the age of 17 to join the 19 year old team in the stages of Asia Cup. Thus, they got the motive and the desire to play while knowing that by taking responsibilities and put in effort, they can reach to the first team. This gave very positive results”. (C2)

6.5.5.2 Consider the player holistically

Coach five highlighted how they take a holistic approach with players development, ranging from consideration of physical, mental, technical, nutritional, self-care and professional aspects of development.

“Honestly, when we studied about the sport preparation, we believe from the beginning that we should take in consideration different aspect such as physically, mentally, professionally and technically. Not to forget the attention level required for each different age teams as their plan and long term strategy is driven from their own skills, abilities and needs, however, when we speak about the Jordanian football sport for a professional players who we give more priority in order to build their mental and professional thinking, educate them about their diet system and the minimum hours number of sleep that he should have on daily basis. Also, educate them about the importance personal cleanliness / hygiene and how to deal with other players and coaches”. (C5)

The interviewees also highlighted a holistic view of players when selecting. In particular, the psychology of the player is considered extremely important, in line with technical and tactical skills. This is particularly important to take less notice of physical attributes which can be affected by maturation for younger players. However, at an elite level these physical characteristics are considered very important. Such a nuanced view of talent at different ages is important in order to give the right players opportunities and also encourage appropriate development and guidance through the development phase.

“Now the way we choose the players, we have a training session every Saturday for new players of all ages. The playground is divided into 4 playgrounds and each age range will be in one of these playgrounds and a coach will be in charge of one of them and sometimes coaches see all the groups. We select players from each group according to certain criteria. So for the juniors (born 2005-2006) who should play this season as their first one, we do not focus on the body. We rather focus on the mental health, the skills and the techniques. For 19 year-old players, we focus on the tactical level and the physique”. (C2)

“From my point of view in Jordan, first the player must have the minimum mindset of an Elite player conjoined with his basic skills in order to be one day an Elite player. Second, the player must proper physically body skills as its more important than technical skills which can be build up by a suitable coach training efforts put into the process of creating an Elite player, since most of the Elite players with Jordan National Team usually has better physically body skills such as running tolerance, stamina and etc”. (C5)

“I would say that the psychology factor is one of the important factors to take care as it will reduce the pressure on coach to focus more on players trainings to produce the determination quality of players”. (C3)

6.5.5.3 Developing strong coach-athlete relationships is very important for understanding player needs and motivation

Within Jordan it was revealed that coaches frequently offer moral support to their players, motivating them to contribute more to the squad. While the nature of the relationship must not interfere with the judgement of talent, the effort that the coach puts in with regards to

understanding and building a relationship with the player will reap rewards in terms of performance and development.

“Now I’m going to speak about the relationship between the coach and the players. The stronger the relationship between the players and the coach, the more the players will put in effort. I often visit players at their homes and this to strengthen the bond with them. This was reflected in the good results. Coaches should separate between their emotions towards certain players and their judge on the players’ performance. Otherwise, some players may lose their career because of certain problem they had with the coaches. I had me problem in the past with some players but I gave them roles in matches. On the other hand, I suspended a payer because of certain issues regardless good relationships”. (C2)

“Moral support is usual coming from coaches which provide the players with inspiration to contribute more to the team”. (C3)

6.5.5.4 Continuing to educate coaches is very important

The coaches and administrators interviewed feel responsible that coaches must take an active part to educate and train themselves and their fellow coaches. It was clearly understood that training and coaching is more than ever now considered a science, and as such upskilling and continually developing knowledge is crucial to effective progress.

“I’d like to add that training nowadays is a “science” such as physics and chemistry; it’s a science that has many aspects, physical, etc. These different aspects are not easy to be mastered by one person only”. (C6)

“The challenge is to be prepared for each match and to work on exercises required for both the trainer and the players. The coach should push on themselves before doing so with the player. By pushing on ourselves to introduce the best every time to improve the player's performance”. (C4)

“The preparation of coaches to refine their own skills and abilities e.g establishes a way to second these coaches abroad to gain variety of training methods and improve as much as possible”. (C6)

“Firstly, the habilitation of coaches skill and ability for those who responsible for talent development”. (A1)

“I am a coach who has field experience and I worked with and without facilities. I used to go for a playground and find that there is no playground so do some training and leave others. But we should be adapted. Therefore, I told you we should work on the coaches as well as the players. The coach so that they are ready for all conditions, so they should change the training if the facility, space or tools are not available. So I found that we did not have tools so I thought of using tools of our own and we used local tools”. (C4)

6.6 Discussion

This chapter examined the perceptions of Jordanian football coaches and administrators of the nature of football talent and development in Jordan. This included the current state of play, hurdles and resolutions to effective Talent Identification and Development environments in Jordanian football. This study found that there are many challenges and hurdles faced by athletes, coaches and administrators alike related to talent development processes in Jordan. The results also highlighted what coaches and administrators believed were some of the potential solutions to these challenges.

Five key features of TD and TID were identified from the study outcomes. The first feature concerns the Infrastructure, financing, long-term planning and operations of football organisations. The second feature concerns the support from family and society on football as a career. The third feature concerns football development particularly concerning the age-group development. The fourth feature relates to the potential solutions at age group level. Finally, the fifth feature concerns the role played by the coach. Each of these features is discussed in detail below.

6.6.1 Infrastructure, Financing, Long-Term Planning and Running of Jordanian Football Organisations.

Administrators and coaches viewed Jordan as a successful country sports-wise, and they opined that Jordan should not be compared with other countries in performance measurement. They were of the view that Jordan significantly differed from other countries in terms of facilities, population and resources, and considering the resources and facilities possessed by Jordan, the administrators and coaches felt that Jordan was fairly advanced in sports. In Jordan, the women's

football team appeared to excel the men's. They noted that women's team had to face much fiercer competition especially when facing the Arab Gulf teams. However, the FIFA ranking showed that women and men's team were of similar level (see Figure 6.3 and 6.4).

Figure 6.3 FIFA World Ranking- Jordanian Women's Team

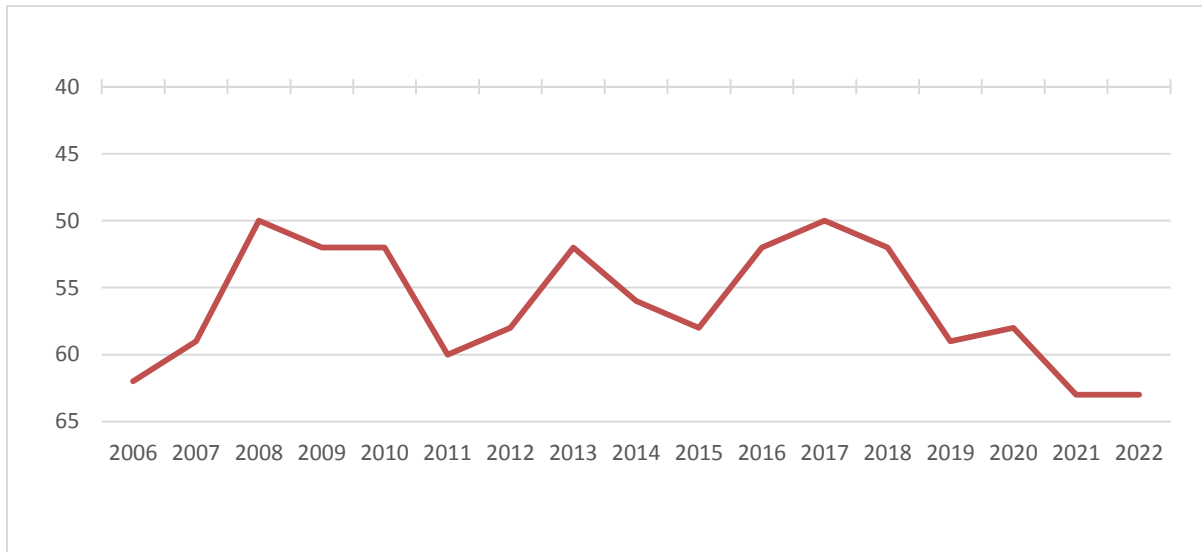
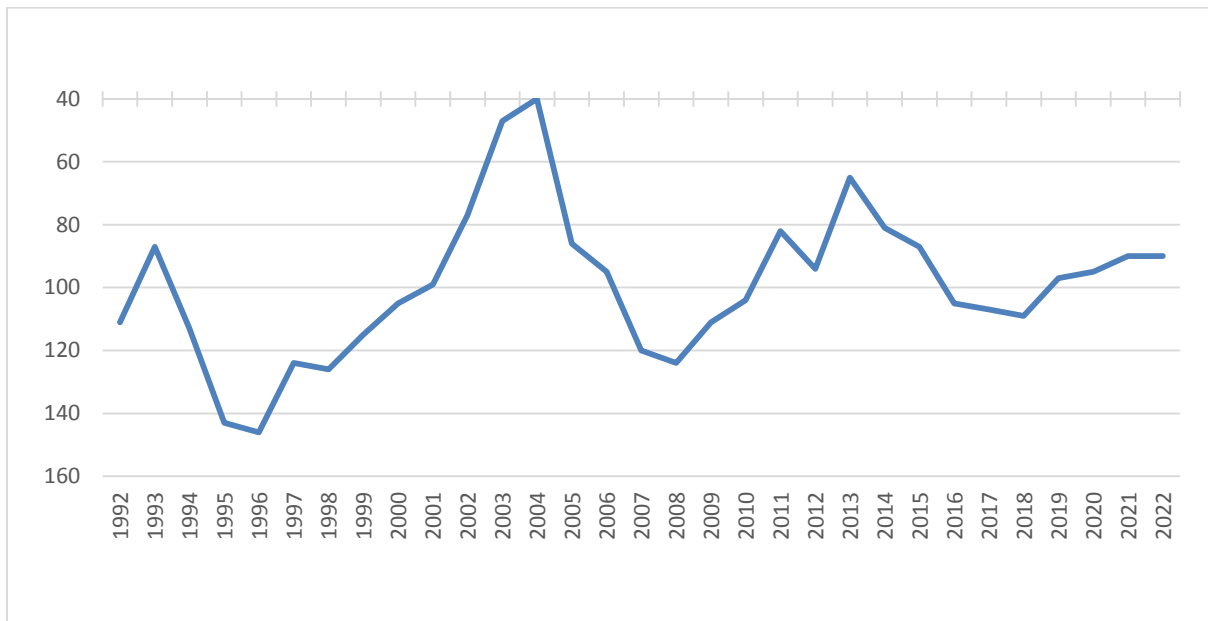


Figure 6.4 FIFA World Ranking- Jordanian Men's Team



The administrators and coaches acknowledged the lack of long-term strategy in Jordanian football, and in Jordan, the contract of coach is mission or project based, and thus, the position of coach is not secured. Also, Jordan was lacking in experienced and qualified coaches, and proper management, and this has impeded this country from participating in prominent games like the Women's World Cup and the Olympics. Expert coaches and also, administrators are needed in women's teams. Equally, similar training philosophy must be embraced by all Universities in Jordan. Somehow, the women's national team was showing steady progress, and the team was demonstrating competency, and well-formed personalities. Unfortunately, JFA does not have long-term planning.

A long-term strategy was perceived as important to both coaches and administrators, and coaching and administering the team is more than just scheduling a game. The coaches are responsible in training the team to become a well-formed and competent team. Jordanian team was perceived to be steadily progressing. However, Jordanian football teams are still not taking part at the international level like the World Cup championships owing to the lack of long-term plans, as highlighted by Joanna Lumley, the head coach of Women's Super League One club Plymouth Argyle.

The results were showing that women's teams in Jordan were not receiving adequate financial support. Also, the football infrastructure had been poorly managed. The stadiums and pitches were of poor quality. Other problems faced including insufficient funding and poor food quality and provision. Furthermore, it was common for the coaches of women's teams to be given the strips of men's teams. However, improvements have been observed in the management of stadium and pitches by the Jordan Football Association, the Ministry of Youth and Sports, and the Ministry of Education.

Poverty, poor management, and lack of financial resources, facilities and long-term planning are among the problems faced by Jordanian football. Jordanian football clubs, JFA, and schools were suffering from severe lack of sporting facilities. Such lack has impeded the children and older adolescents from developing and honing their football skills. For higher-level football players, the lack of facilities has prevented them from pursuing football as a full-time career. In essence, the lack of essential football facilities in Jordan has been impeding talent development and success in this sport.

In comparison to Jordan, developed countries like UK, Australia, Canada, and the Europe appear to have clear policy direction for talent development. Not only that, these nations have been investing heavily in football. Indeed in Jordan, a significant lack of investment in sports development has been reported in several studies (e.g., Grix & Carmichael, 2012; Mair et al., 2021; Wodniak, 2021) as evidenced by the poor conditions of facilities and sporting infrastructure across the country.

In Jordan, the clubs were formed by the academies themselves. In other words, there has been no involvement by Jordan Football Association in the establishment of talent schools. Hence, the academies have been faced with considerable financial obligations. Clearly, there is no proper organization overseeing the football talent development in Jordan, and therefore, there is no school or academy of football under the same club. The survey respondents expressed the need for having sound organisation so that talents in Jordanian sports could be developed. Somehow, the lack of infrastructure has been preventing the clubs from operating optimally.

In Jordan, the stadium infrastructure is neither safe nor environmentally friendly. In other words, the design of the stadium does not take into account the elements of safety. This can harm the

players in the long run because the potential for injuries to occur is greater. Also, the lack of appropriate and conducive training services and equipment causes players to become exhausted much faster.

In comparison to athletes in other countries (Henriksen et al., 2010; Li et al., 2014), athletes in Jordan have not been receiving the support and encouragement as they should, and this has made their development and growth process very challenging. In Jordan, the opportunities for TID are low and/or poor quality. In fact, only some cities in this country were able to provide the athletes with conducive economic climates owing to the availabilities of capital and facilities. It has been shown that the birthplace an athlete will significantly impact his/her development and success (see: Cote et al., 2003; Hancock et al., 2018; Cote et al., 2021). In Jordan, people living in cities that are further away from the capital of city of Amman were demonstrating less interest towards sports, and towards football.

It appears that sports talent identification in Jordan was hampered mostly by the lack of financial support. It has been reported that many coaches and administrators were in debt and many had their salaries unpaid for several months. This situation has made their future as coach or administrator of sports very uncertain, and the income that they earn from the sports domain was unstable, and in some situation, their earned income was inadequate to support their family. It was therefore impossible for these coaches and administrators to fully serve the sports domain. The outbreak of COVID-19 pandemic has made the situation worse. In fact, many football clubs in Jordan were facing bankruptcy risk, while the coaches and administrators were facing financial hardship owing to delayed salary payments. The situation of football sports in Jordan is comparable to that in other developing and third world nations (Elumaro, 2015; Stubbs et al., 2021; Araar & Timothy, 2006).

Among football players in Jordan, injuries were found to prevent them from achieving their potential. In fact, many football players in Jordan were expressing fear towards getting injuries. No health insurance, inexperienced sports therapists, and lack of sports specialised hospitals were the three main factors that caused fear of injuries among football players in Jordan (Hatamleh, 2010).

Sports in developing countries has been tarnished by mismanagement and corruption (Araar & Timothy, 2016; Elumaro, 2015; Mauro, 1996; Guetat, 2006; Nawafah, 2013; Goedhys, 2016; Bonga, 2021). Also, the financial conditions of football clubs, or even the country, will significantly impact football participation and the development of football players. In this regard, failure of clubs management in providing ample financial support to their players will have a great impact on the players' future career, especially in sports context. As mentioned earlier, there was a problem of mismanagement in football clubs by both coaches and administrators, and this has affected the availability of resources for football development. It has been found that some football coaches for national teams were appointed based on their connections within the system, rather than based on their experience of career profile as a football coach. In other words, nepotism has been existing in Jordanian football, and it also has been linked to corruption and administrative mismanagement in the sports. Likewise, the respondent coaches in this study also expressing their disappointment towards the misconduct of administration of football clubs and associations.

Hence, it is clear that Jordanian football is still lacking in many aspects. Based on the findings, the football clubs and institutions in Jordan are in dire need of specialised professionals including food specialists, fitness trainers, and physiotherapists. Interestingly, these professionals were not present in Jordanian clubs, and because of mismanagement, many did not realise that these

professionals are necessary. Having these professionals in the clubs and association of football could significantly improve the quality and performance of Jordanian football players, aside from providing them with the best possible care and protection.

6.6.2 Football is Popular, but Family/Cultural Support for Football Development as a Career is Poor albeit Improving

The Jordanian society prioritizes education over sports, and therefore, it is not uncommon for football activities to be perceived as distracting children from excelling in their studies. Jordanian society perceives that education is the only way for successful future, and therefore, the domain of sports has not been perceived as a promising future for children. In fact, there has been a negative perception towards sports, and such perception has been a considerable barrier to talent development in Jordan, especially for football talent development. Notably, socio-cultural factors like birthplace, have been found to impact sports participations of people (Côté et al., 2006; Taylor & Collins, 2015; Sarmiento et al., 2018; Paula et al., 2018).

It has been found that in Jordan, athletes who went against their parents by participating in talent development activities would risk losing support from their family, especially financial support. Disapproval from parents or family towards participation in talent development is hence a major hurdle in sports development in Jordan.

Jordanian society perceives sports participation as something with no earnings potential and therefore it is perceived as wasting time and resources. Furthermore, parents in Jordan are not confident that their children will become elite athletes, or in the study context, a professional football player. The same situation also has been reported by Elumaro (2015) in Nigeria. On the other hand, the situation in developed countries like Australia and the UK differs, where sports has been receiving various types of support from family, and from various other institutions. In

these countries, talent development programs and opportunities for sports are very well established and lucrative (Bloom, 1985; Till et al., 2011; Cote, 1999; Martindale et al., 2007; Knight, 2017; Olszewski-Kubilus, 2018; Coutinho et al., 2021).

According to the study participants, Jordanian culture emphasizes family respect and obedience towards parents and relatives. Such form of adherence has a strong linkage to Islam which is Jordan's major religion. Islam links respect to parents as part of reverence to God, and Islam also fosters parental righteousness. Furthermore, as government assistance is unavailable in Jordan, children generally would depend on their parents until they marry. The participants additionally mentioned that many parents in Jordan pay little attention to the ability of their children in excelling in high-level sports, and in general, parents in Jordan would discourage their children from being seriously involved in sports. As such, TID in sport has been perceived as meaningless for children or young people, and sports is not perceived as a professional route either.

Considering the social and cultural hostility towards sports in Jordan, those who want to pursue sports as their career must possess extraordinary level of resilience and they must completely rely on their physical abilities. Some sportsmen have even shared their experience of keeping their sports involvement a secret to avoid punishment or undesirable reaction from their families. In fact, it has been reported that families of athletes are a major hindrance to TID. Parents in Jordan are likely to punish rather than encourage their children when it comes to sports, and disobeying parents' desires would adversely impact children's emotional, financial, and societal wellbeing. Those who disregard their parents' ruling and continue their involvement in sports are likely to suffer financially, and in other aspects.

However, there are those who were determined to succeed in their dreams to become a football player, and they overcame all the hurdles, and were successful in the end. These players were

able to make use of all of the opportunities that they had like practicing privately with peers in the streets, and by doing so, they were able to prevent the cultural disapprobation from their parents. Hence, in Jordanian context, the main determinants of successful TD are commitment to development, and the capability of athletes in regulating their time, goals and engagement (Zimmerman & Cleary, 2006; Reverberiel et al., 2021; MacNamara et al., 2008; Cumming et al., 2018; Toering et al., 2012).

Additionally, the lack of financial aids has led to poor management of infrastructure. In terms of uniforms, female coaches had had to wear the uniform made for male coaches, and it took fourteen years and substantial amount of efforts for female coaches to receive their own uniform. The Jordan Football Association, the Ministry of Youth and Sports, and the Ministry of Education have their own dominion. Meanwhile, FIFA ranked Jordanian women's football as the best in the Arab domain. This season (2021-2022) debut premium league for women includes seven clubs of professional women, and during the season, 40,000 JOD would be provided to each club to cover payroll, technical teams, clothing, and other expenses.

In Jordan, young ladies playing football is perceived culturally as a disgrace. In fact, football has been regarded as a male-only sports. Hence, a girl playing football is perceived as having a bleak future, and poor marriage prospects. Like males, female football players also would conceal their involvement in sports. Also, most cities in Jordan have no female football team that these interested women could join. Further, females would face more difficulty with transportation expenses.

Jordanian female athletes, specifically female footballers, have to deal with much more hardship as the society views these females negatively in various ways. Female athletes are viewed as violators of society, religion, and heritage. To this end, it is common for the media to humiliate

these female athletes and invade their personal life severely. Also, it is common for game fans to make sexist remarks about these female athletes. In fact in Jordan, women are even discouraged from viewing sports.

In comparison to their male counterparts, female athletes in Jordan would have to face significantly more challenges, especially in terms of the support and reaction from their family and the society as a whole. Additionally, owing to Law 4 interpretation, the Muslim female football players on the Jordanian national team had to face the FIFA's Islamophobic hijabophobia. Still, the female Muslim players were resilient, and eventually succeeded in preserving their rights to partake in football tournaments while still observing their religious requirements of modesty.

The perseverance and resilience of these Muslim females are demonstrating that they are actively in charge of their own lives, and would fight discrimination and both local and international level. As such, it is necessary that non-Muslim/Western policy-makers, researchers, teachers and trainers who are involved with Muslim women and youth in their work, take into account these challenges and injustices, in the development of their research and pedagogy in physical education and sport curricula. In fact, the Islamist and Islamophobic hijabophobias in sport and physical education theories and approaches need to be challenged.

Conflict had arisen between Muslim female athletes and FIFA, and these athletes had sought assistance from Prince Ali of Jordan, the then president of the West Asian Football Federation and the VP of FIFA for Asia. The issue was then forwarded to the President of FIFA, and Prince Ali articulated that the hijab ban has caused Muslim women to be denied from partaking in football, and such decision has indeed affected all Muslim women globally (Hamzeh, 2015;2017;

Ayub, 2011). The diligent efforts of the female athletes and the support from Jordanian officials have resulted in the overturning of the hijab ban by FIFA.

6.6.3 Football development is more accepted, but the priority for age-group development is low

In Jordan, young players have been rather neglected, even though it is commonly understood that any pro footballer would begin as a young player. In Jordan, the Ministry of Youth would be the body responsible in recruiting the young through specific programs. However, with limited resources, not much could be done. Hence, the ministry has been seeking support for funding the youth training programmes.

In Jordan, the Jordanian football association functions as the legal umbrella for all organizations, and the clubs need assistance from the association to grow. The association has large budget and top sponsors like the Arabic Bank and Al-Manager. The allocated prize for the champion of football association is 5000 Dinars, and this amount can benefit players of all age groups, and trainers as well. However, the amount is not revealed in the association's website. Also, the available playing fields appear to lack the facilities for the young, and for this reason, the association still lacks footballers in the age group of 11 to 21.

Since 2005, Jordanian female football players have gained a prominent spot globally. Still, ranked at 62nd place, the team has a lot to accomplish. There were progresses but they were rather slow and unsystematic. Accordingly, little professional player programmes have been launched under Jordan's Ministry of Youth but funding has been limited, and therefore, the progress has been rather slow.

Jordan's football league is responsible in overseeing the development of private sports academies in the country for players from different age groups. Academies have to have specific goals to achieve in their operation rather than just pushing to earn more money. Hence, it is important that they operate based on their core purpose. There is also a concern over the wage level based on professionalism, particularly with respect to the maximum and minimum wage level, which needs to be set. Interestingly, many athletes in Jordan were unaware of this matter. Football players have been receiving meagre amount of pay, between 4000 and 5000 Dinars, and the amount received is often less than agreed. Additionally, athletes seem to be unaware of the protection measures and protocols that they need to comply with. In fact, many were engaged in unhealthy habits like smoking. Hence, athletes need to be trained to be disciplined at a very young age.

Another factor impeding talent development in Jordan is the lack of professionalism and football related knowledge. As shown, professionalism has not been practiced in Jordan, and this situation can be attributed to the lack of independent legal system for sports professionalism in this country. In fact, legislation on competitive or elite sports is non-existent in Jordan. Notably, the term “Professional sports” has yet to be officially or legally defined in Jordan, and therefore, features of professionalism within Jordanian context are yet to be established. Furthermore, coaches are still unclear about their specific duties as there are no guidelines, particularly in terms of knowledge development level of players (Hassan, 2014; Al-Hunaity, 2018; Al-Adwan, 2012).

In Jordan, professionalism should be developed and applied, but first, sports professionalism in the context of Jordan needs to be defined (Hassan, 2014; Al-Hunaity et al., 2018). In this regard, coaches play an important role as they are the ones with the ability to impart knowledge to the

players on important matters like their diet as athletes, like the type and amount of food to eat, the quantity of fluid to be consumed during training, the impact of bad habits like smoking on their performance, and so forth.

6.6.4 Potential solutions at age group level

The results show training constancy as a very important factor. In Jordan, talent may start as early as 7 or 8 years old. However, the youngest trained by Jordanian coaches is usually 13 years old, while in other countries in the Middle East, training begins as early as 9 years old. Players aged 15 and below are regarded to be in developmental stage, and this would be the most appropriate time to teach these players important football skills like passing, receiving, and other skills which may be more challenging to learn when the players are older. Jordan generally lacks players younger than 15 because JFA was not aware of their potential talent. For women players, they usually begin their training as early as 14, but the study participants opined that the training should begin earlier. In the development of young players, training constancy was regarded as a very vital aspect.

The study respondents were of the view that competing locally will make the athletes more competent and experienced. Furthermore, they proposed placing players in a team with wide age range so that these players could develop much faster. Also, tournaments should be held at suitable times to make it easier for people to take part. In addition, the respondents suggested that athletes should be allowed to play for much longer time – 9 months in a year, as opposed to only 2-4 months like in 2019. Hence, the athletes would only have 3 months off rather than 6 to 8 months off as in 2019. Also, having proper football schools will allow players to improve their football skills, and participate in more tournaments against many teams. This way, football in Jordan will be more competitive with more diverse and dynamic players.

The results show that talent development in Jordan lacks *formal* pathways, and this owes to the lack of schools or government systems, or club systems that would provide players with the structures needed for talent development (Bloom, 1985; Cote, 1999; Balyi & Hamilton, 2004). Rather, the common pathways in Jordan are the *informal* ones as can be exemplified by the commonness of unstructured street play in developing the passion, interest and talent of football players. Such pathways appear to hinder TID, but the study respondents also noted the lack of clear system for TID and TD.

The transition from youth to adult play is crucial in player development (Andronikos et al., 2019), and the transition can be very difficult and poor outcomes are common (Wylleman & Lavalee, 2004). In this regard, voluntary support from older players is important but in Jordan, a specific system or program for such purpose is non-existent. According to the study respondents, the effectiveness of young players' development can be increased through increased matches, increased support from JFA, and more effective partnerships with sport academies.

The school system was found uncondusive for football talent development owing to the lack of facilities, funding, and qualified teachers. Also, like most parents, teachers in schools generally appeared to discourage students from pursuing football as their life career. Hence, those who became football players were those with strong self-determination and self-regulation, which have facilitated their successful development (Wang & Biddle, 2007; Ryan & Deci, 2020; Vasconcellos et al., 2020; Cote & Hay, 2002; Cumming et al., 2018; Reverberiel et al., 2021).

Another factor is the lack of competition which weakens TID and TD. In other words, the athletes were not adequately driven to be competitive. As mentioned, the national football team and football clubs in Jordan were not taking part in world competitions like AFC champions'

league or the World Cup. Hence, Jordanian football players generally lack the motivation. On average, Jordanian male players would play 22 games per season in leagues with 11 clubs. On the other hand, the female players would play 8 games per season, on average. Contrariwise, at the international level, Picazo-Tadeo et al. (2010) reported that a professional player would play 40-50 games on average per season. Also, there are no teams in JFA for players under 11 years old.

The school system should be the main structure for children to engage in sports, and to a certain extent, schools in Jordan did encourage sports talent development. Somehow, many schools in Jordan failed to provide children with the right environments for sports development, especially after the collapse of boarding school system which has resulted in severe lack of sporting facilities, impeding talent development. Reports were showing that most schools were abandoning or neglecting their facilities, in terms of human resources (physical education teachers, games masters, and coaches) and material resources (sports facilities and its funding).

Furthermore, teachers were sharing similar view with the parents and the Jordanian culture that education precedes sports. In this regard, many teachers expressed opposition towards athletic developments because they were of the view that these would reduce the time that students would have for academic development. Families and school environments are indeed the two major forces in the development of an average child, and these affect sports talent development of the child.

Some school principals and teachers were of the view that students who played football were not serious about their studies and were sacrificing their academic education, and therefore, many of these students were punished. Such punishment also prevented other students from taking part in sports. Also, in secondary school, physical education is excluded from the curriculum. Hence,

many young players decided to leave their development programmes. Scholars have proposed a deliberate intervention by government so that talent development environments could be provided in Jordanian education system. Also, more funding should be allocated for sporting facilities particularly those in schools and public education institutions.

In Jordan, school policies and guidelines for addressing talented children in physical education have not been developed. In schools, there was no distinction between sports talent and physical education talent, and this could create bias potential in teachers' pedagogy. Hence, teacher needs to be trained so that they could identify between both and correctly manage talent development (Prieto-Ayuso et al., 2020; 2021).

6.6.5 Role of the Coach

The study respondents reported the difficulty in finding the right coaches to develop football players in Jordan. Meanwhile, most players trained themselves informally on the street, that is, they received no professional guidance that could facilitate their talent development. Hence, some might say that in Jordan, sport development is majorly *incidental* due to the lack of planned or systematic procedure. Relevantly, poor coaching quality has been linked to challenging sports development, as can be observed in Jordan (Onifade, 1985; Adesanjo, 1997; Ojeme, 2000; Motz et al. 2022).

The respondents were suggesting that Jordanian coaches expose themselves to football environment in Europe so that they could gain more knowledge and experience which would help their coaching. They were stating that coaches with overseas experience were better and more powerful in their coaching. In other words, they were of the view that experience in coaching precedes formal education in coaching. Another suggestion is the use of world-class coaches to train potential Jordanian players. They relevantly stated that the lack of coach support

has created hurdles in Jordanian TI and TD. They also mentioned the preference towards foreign coach to local coach among clubs. In Jordan, local coaches were not receiving sufficient funding. Also, their position as coach was insecure – they could lose their position as coach if they lost the first game.

One player was expressing issue with the local coach by stating that the international coach (a Japanese coach) which was hired by his club was more confident in his abilities and encouraged him to consistently play. The player then decided to become professional football player and travelled to UAE to play in their Ramadan competition. This player was able to establish a personal reputation for himself at the very young age of 20. He then received a number of offers to play for various Sport Clubs, and then joined Al-Wehdat Club. In 2013, he joined Al Baqa'a Club and played for two seasons, before rejoining Al Nasr in 2014.

In Jordan, an elite player has enhanced physical capabilities like endurance, sensitivity, and durability aside from possessing the fundamental football playing abilities. A trained coach would hone the player's technical talents. However, one study respondent mentioned the need to also address the psychological component because this will allow coaches to concentrate more on individual training to create the best footballers in the kingdom.

Active involvement of coaches in player education and development is important. Today, training is a form of science and it encompasses intricate discipline comprising various physical and nonphysical aspects that are not so simple to understand. Coaches must prepare themselves first before preparing the athletes, and practice on useful routines. Additionally, coaches need to develop good personal relationship with their players, and differentiate between their feelings for individual players, and their evaluation of the performance of the players. Hence, despite strong personal relationship, coaches must also be able to act objectively and professionally.

Coaches should consistently improve their own abilities and talents, like expanding their experience. Also, coaches should be flexible enough to be able to adapt their teaching to the needs of the players and also be prepared for any potential situations.

The success of talent development in sports is greatly affected by the coach (Bloom, 1985; Eze, 2015). Athletes need experienced coaches to guide them through the stages and transitions of development. The coach will determine the right training activities in the right intensity, and so, players will not waste their time or energy on the wrong activities with the wrong intensity, which may negatively affect their development. Martindale et al. (2007) relevantly reported that aside from family members, coaches are important in TID, and hence, coaches are part of the framework of effective TDE.

Talent identification is important as it motivates young people to face all challenges in developing their talent. However, in Jordan, there were no coaches at the community level to identify talents. In fact, most coaches preferred working in big cities for organisations that may offer higher wages. Quality-wise, coaches in Jordan were mostly viewed as outdated – they lacked the ability in keeping abreast with the latest coaching trends and innovations. As expressed by the study participants, many Jordanian coaches did not possess the right qualification and experience, and most were appointed as coach because of connection rather than qualification. Relevantly, coaching quality has impact on the effectiveness of talent development (Bloom, 1985; Saavedra, 2003; Short & Short, 2005; Bouwer, 2010; Schlatter & McDowall, 2014).

The most common tasks of a coach are to design and implement the training programmes. Interestingly, coaches in Jordan also provide financial and moral support to players, like a family

member. Additionally, the coach teaches player commitment by being a role model, by committing him- or herself to the development progress of the player. The coach contributes to the successful development of player (MacNamara, 2013). For instance, the coach would support players in defying their family by convincing these players that their family will eventually support them if they achieve success.

Martindale et al. (2005; 2007) reported 5 key features of effective TDEs as follows: long terms goals and methods, consistent and clear messaging and support, placement of the locus on appropriate development as opposed to early success, individualised and continuous development, and integrated systematic development based on procedure. Unfortunately, these features did not exist in Jordanian football. Firstly, the players were following the informal pathways in their talent development, without receiving financial or moral or cultural support. In addition, Jordan does not have appropriate or clear or systematic TID programme. Also, by chance, the coach may help in gaining support from the player's significant others like family, teachers, and others to encourage the player's long-term development (Martindale et al., 2005; Henriksen et al., 2014).

For Jordanian athlete, the coach plays a variety of very important roles, even more important than coaches in other cultures. Nonetheless, coaching has been reported as a key element for successful sport talent development (Bloom, 1985; Cote et al., 2003; Martindale et al., 2007; Vaeyens et al., 2008; MacNamara et al., 2008; Gillet et al., 2010; Coulter et al., 2010). The coaches in Jordan also play a family role; they may become a father figure to the player as it was common for Jordanian athletes to become estranged from their own family owing to their decision to become an athlete. It is thus common for coaches in Jordan to provide moral and financial support to the players. In some cases, the coach even provides accommodation.

Lastly, considering that this study involved interviewing only 8 people (6 elite football coaches and 2 administrators), the results may have limited generalizability. The small sample size was factored by, among others, the reluctance of many other participants to partake in the interview because of the pandemic. Still, this study was able to achieve consistency in key information from the selected cohort. Hence, data saturation was achieved. Also, taking into account the challenges faced by Jordanian coaches and administrators, it is suggested that future study employ an exploratory qualitative approach involving interviews with experienced players, coaches and administrators in Jordan.

Chapter 7-General Discussion, Limitations and Future Research

7.1 Introduction

The present thesis aimed to investigate the nature of talent identification and development (TID) in the context of Jordanian football. A mixed methods approach within the thesis utilised both quantitative and qualitative research designs. First, to help facilitate a quantitative evaluation and identification of strengths and weaknesses of the football TID system in Jordan, the Talent Development Environment Questionnaire (TDEQ-5) was translated, validated and employed to gather data from male and female football players within the system. This enabled an analysis of relative strengths and weaknesses leading to recommendations of development priorities. Second, athletes, coaches and administrators were interviewed as part of this thesis to gain more in depth qualitative understanding to the nature of TID within Jordanian football, and again aimed to highlight areas of best practice, challenge and barriers to help inform future developments from an evidence based stance. Additionally, review of past relevant studies demonstrated a discernible gap in respect to the nature and processes of TID in Jordan, and in the subject of effective practice (Martindale et al., 2005 Barraclough et al., 2022; Andronikos et

al.,2021). This research gap and the strong desire to improve practice that appears to be apparent in Jordan leads clearly to the need to carry out empirical investigations on TID in Jordanian football, and thus, in response, this thesis was designed and carried out.

Talent development in Jordan has been facing tangible challenges such as lack of management poor infrastructure and financial incentive, as well as sociocultural challenges such as a need for improved coaching, and lack of support for family. As such, this thesis is among the first work to empirically examined these challenges and their impact on both performance and development. Some sociocultural factors like the culture of Jordan may impair development, as can be exemplified by the lack of parental support towards talent development which could dampen the journey of athlete into elite level (cf. Collins & MacNamara, 2012). Accordingly, the discoveries made by the present thesis may become an initial reference point for players, coaches and other TID practitioners. Additionally, the findings of this study will hopefully motivate more research into the subject of TID in Jordanian context. In line with this, this thesis attempted to accomplish the following objectives:

- To translate and validate the Talent Development Environment Questionnaire (TDEQ-5) in Arabic.
- To evaluate the talent development environment in the Jordanian football context utilizing the Talent Development Environment Questionnaire (TDEQ-3), the Arabic version.
- To investigate the perceptions of male and female Jordanian football players on the nature of development in Jordan.
- To investigate the viewpoints of Jordanian coaches towards the nature of development in Jordan

- To investigate the viewpoints of Jordanian administrators towards the nature of development in Jordan.

Several points came to the fore from this thesis, which are important for general discussion. More specifically, the nature, challenges and procedures of talent development in sport were identified. This is important because this information would allow athletes, coaches and practitioners to gain a better understanding of the underpinning factors of current practice and guide them towards best, or at least improved practice. Secondly, perhaps due to the lack of scientific analysis of the nature, environment and procedures for Jordanian football talent development previously in the literature it was apparent that players and their coaches, as well as parents have misconstrued certain elements as having negative effects on talent development in Jordan. Although in actual fact, such factors present opportunities for effective development. For example, stakeholders in TD in Jordan (e.g. players and coaches) believed that the unstructured participation in football that many children engage in from a young age has negative effects on development. However, in contrast, such experiences have been advocated for effective development.

This chapter presents and summarises the main results and findings in four sections: First, it presents a discussion of the nature, challenges and factors of effective development. Second, it presents a discussion of the strengths and the weaknesses of the nature of talent development in Jordan. Third, it presents the research limitations and recommendations based on this research results, and finally, it presents the elements that need further research.

7.2 The nature, challenges and procedures of TID in Jordanian football

One of the contemporary issues in the TID literature is the culturally specific nature of talent and the need to exercise caution in cross-cultural application of models perceived as effective in certain cultures without considering its contextual implications (e.g. Collins & Bailey, 2013). Given that very little is known before now, about the interface between sociocultural elements of the Jordanian society and talent development in football, it was important that this thesis took an exploratory approach, to unearth the social and cultural contexts of talent development. The results of the qualitative studies of the thesis highlight the sociocultural features of the Jordanian society some of which have critical implications for talent development (e.g. cultural practices, poverty and corruption); the challenges to players and football development (e.g. family resistance, misconceptions about sports, financial barrier); and the factors facilitating effective development (e.g. informal grounding in physical development). Certain cultural practices were highlighted among Jordanians that may influence TID in football and also more generally in sports. For example, there is an overall ignorance and/or antipathy to talent identification and development in Jordan.

As discussed, cultural prejudice and mismanagement and low competencies in sports administration and management from the government down severely limit sports development opportunities for football players in Jordan. The lack of facilities in communities and schools, family refusal to allow their children to participate in sports, poor implementation of sports development policies of government all mean there are no organised sports in communities. Therefore, talent identification efforts in many local communities are almost impossible to implement even if the will and infrastructure existed. The results outline that there are no clear

systems for TI and TD and for players, and it was stated that a system of TI and TD only exists on paper.

There is also a high rate of poverty among many Jordanian families. Consequently, families set priorities around their finance and as such do not have enough capacity to finance TID sports; this places a huge burden on the athletes. And finally, there is high rate of corruption among the political office holders meaning that state funds meant for common social good are diverted to private purse; the implication is that there are no facilities for TID, government policies are not well funded, and so, they are poorly implemented.

Following from the key features of the Jordanian society described above, certain challenges to players and sport development were also identified in this thesis. For example, the family was noted to be resistant to TID in football. Parents believed that education is the only feasible means of defeating poverty and securing a better financial future for their children, while sport development was viewed as a waste of time, thus, most parents disallowed their children from taking part in sports. More so, the financial status of many families lacked the capacity to finance talent development, because allowing the child to play football would constitute an additional drain to the family income and probably limit the family's ability to finance the child's education.

Furthermore, some misconceptions about talent development in sports were identified among Jordanian families. For instance, many parents believed that footballers are wayward people and that playing football would make a child less serious with regards to their studies. Also, some parents believed that playing football regularly would have negative effects on the reproductive life of their female children. For these and many other reasons, the family constituted a

functional barrier to talent development in football. The role of the family in a Jordanian context presents a sharp contrast with other cultures where parents offered significant supports for TID (e.g., Bloom, 1985; Cote, 1993; 1999; Martindale et al., 2005; Gould, 2006; Knight, 2017; Hébert,2021). Family resistance to TID was a contributing factor to athletes being seen as wayward and disobedient to elders, because athletes had to ignore parents' instructions in order to be involved in TID, whereas, respect for elders is part of the hallmark of the culture of the Jordanian society.

Also, there was no formal pathway for talent development in Jordan; rather, the data revealed an ad hoc development model, in which the development process is very individualised and informal. Players themselves constitute the major factor of success or otherwise. The talent development environment in Jordan was lacking in terms of the support network advocated for talent development in other cultures (e.g. Martindale, Collins & Abraham, 2007, Sarmiento et al., 2018; Dimundo et al., 2021). In Jordan, success of football talent development has been primarily factored by psychological resilience towards the environmental challenges (Sarmiento et al., 2018; Roberts et al., 2019). Successful Jordanian footballers were identified as possessing the 'I can do spirit' which epitomized self-regulation, self-belief, determination and passion for talent development, and thus, they were able to overcome all the challenges to TID in the environment. The most important, and in fact the only source of support for talent development in Jordan was the coach. Besides providing technical and tactical guidance on training, the coach played other roles including being a 'father-figure' to players (which was important as many players would be have been neglected by his or her parents for taking part in TID), as well as providing social and financial support to motivate players' commitment to their development. The coach equally served as a role model in the Jordanian context; most coaches were former

players who had passed through experiences similar to the challenges developing athletes were facing in the environment. Therefore, it is clear that the coach constitutes a critical factor of successful football development in Jordan, perhaps far more than the responsibility of the coach in other cultures.

7.3 The talent development environment in Jordan

7.3.1 Strengths

In general, some features of TID in Jordanian context were hindering player development. However, there were also some strengths highlighted. For example, Study 2's TDEQ evaluation did highlight relative strengths of the environment, with factor 'Goal setting and coherent support' and 'Long terms development focus' showing average scores between 4 and 5, which means on average players were agreeing/agreeing a little bit to receiving certain experiences. For example, items averaging 5 or more included 'my coach allows me to learn through making my own mistakes'; 'My coach emphasizes that what I do in training and competition is far more important than winning'; and 'My coach and I regularly talk about things I need to do to progress to the top level in my sport (e.g. training ethos, competition performances, physically, mentally, technically, tactically'.

Within the qualitative studies, some sociocultural environment elements were found to facilitate development with correct management. The difficult financial situation in Jordan means that Jordanians have to make considerable efforts to survive. It is common for Jordanians both young and old to walk long distances, from home to work, to school, and to training. Such situation has produced strong and resilient individuals – Jordanians are generally fit and active unlike

individuals living in sedentary culture who may not be as fit or strong. These physical characteristics could facilitate the future involvement of Jordanians in talent development.

Additionally, Jordan has unregulated and unstructured talent development where children participate in sports mainly for fun, and in an unsupervised environment – there were no adult or school supervisions. Cote et al. (2007) indicated that such environment could promote effective talent development. Children playing sports in various locations like the streets and backyards are demonstrating the potential that these children have in certain sports. Hence, these children may start training in the sports that they were already involved in. In general, Jordanian children play sports because they want to, not because they were pushed to do it by others. In other words, Jordanian children were involved in sports out of personal choice and preference, and so, these children were not likely to be hindered by anyone, even their families, in pursuing their dreams of becoming world-class performer in sports.

Thirdly, the various hurdles faced by Jordanian children in developing their talent in sports, especially football, could make them stronger and more resilient mentally and physically. This is critical in their effective development as elite athletes who are generally strong and resilient. Relevantly, studies have shown that many supports mechanisms available in other nations like the USA and UK are not effective enough as these mechanisms do not allow players to face challenges that would toughen them physically and mentally, unlike the situation of Jordan, albeit the lack of proper support mechanisms. Instead, the aforementioned challenges have been the inherent part in the Jordanian environment. Hence, Jordanian football players were stronger than their counterparts, both physically and mentally, owing to these challenges. However, it is important to note, that Holistic quality preparation was shown to be the weakest part of the Jordanian football environment from the TDEQ evaluation. As such, it is important not to

assume ‘a school of hard knocks’ is the way forward in terms of the development of mental strength and find ways of supporting this process intentionally.

Notably, with the support from the HRH Prince Ali Bin Al Hussein to Jordan Football Association and the players, male and female football players in Jordan are currently in better condition. At present, about 1,000 women and girls had enrolled in official clubs and grassroots centres. Additionally, following the involvement of the HRH Prince Ali Bin Al Hussein Bin Talal in FIFA, the training of football in Jordan has significantly improved especially in terms of process and quality, particularly for woman football players. His Royal Highness had also influenced the perspective of the parents and the Jordanian society in general towards females being involved in football. He also had provided coaches to train the team. The improvement process has been monitored as well. Hence, despite being opposed by both family and society, the women’s team has been receiving support from Prince Ali.

Finally, Jordanian culture requires that the elders are respected. Here, parents, teachers, older siblings, older people are all classed as the elders, and elders are rarely defied. This culture should be used to solidify TD in Jordan. While it is true that parents as elders are against sports in general, but with the right awareness instilled in these parents, especially about the prospects in sports and how sports could improve their children’s general development, the parents may change their mind and be supportive of their children’s talent development, and positively influence their children in their TD process.

7.3.2 Weaknesses

As mentioned above, Study 2 highlighted the factor ‘Holistic Quality Preparation’ as the lowest scoring factor. All seven items within this factor scored on average below 4 (agree a little bit).

These included: ‘My coach doesn't appear to be that interested in my life outside of sport’; ‘My coach rarely takes the time to talk to other coaches who work with me’; ‘The guidelines in my sport regarding what I need to do to progress are not very clear’; ‘I don't get that much help to develop my mental toughness in sport effectively’; ‘I am not taught that much about how to balance training, competing and recovery’; ‘My coach rarely talks to me about my well-being’; and ‘I am rarely encouraged to plan for how I would deal with things that might go wrong’. As such there are clear areas that the football environment could focus on to improve player experience.

The qualitative studies 2 and 3 highlighted additional areas of challenge. The environment of talent development in Jordan has been impaired by social problems including poverty, corruption and poor leadership. These social problems contribute to the weakness in TD in Jordan. In Jordan, poverty has been linked to poor resources management and corruption people in power (officials, including sports officials) (Osamah et al., 2015; Nawafah, 2013; Jackson et al., 2022). In addition, the unemployment rate in Jordan has been high, and so, many families could not finance their children's sport development. In Jordan, corruption has been rampant, and has plagued all aspects, including sports. Sports corruption and poor sports governance are happening in Jordan owing to poor administration. It should be noted that in Jordan, the appointment of sport administrative generally follows political patronage.

In addition, poor practices and misconducts have been occurring in Jordan's administration and management of sports departments/agencies. Corruption culture and mismanagement of public funds in Jordan's sports sector have been reported as well, and both factors have been affecting the players in a sense that they have been unfairly treated. For young players especially; it is not uncommon to be selected according to who they know, rather than what they are capable of

doing (ability), and in fact, many footballers were accepted into the national teams because of their linkage inside the system, leaving those without linkage to be left behind albeit their extraordinary talent. Equally, it is not uncommon to see coaches choosing their own children, or those children whose family are related to them to play in their team. Furthermore, the use of inducement in player selection at the national level increases the mistrust and dissatisfaction towards football.

Jordan also suffers from poor implementation of sport development policies which can be associated with the poor attitude of government towards sports, in addition to corruption among sports administrators. The government has not been investing adequately in sports, while the available funds were being mishandled, impairing the sports development programmes. As can be observed, many communities lacked the facilities for sports participation, while those that do, could not utilize the facilities as effectively owing to dilapidation and poor management.

For females, participating in football is unacceptable, and some families consider female playing football as shameful. It is common that females that play football are viewed as unfit as future wife. In general, football is viewed as male only sports, and so, many females that take part in football would conceal their sports activities. In addition, females would commonly face obstacles in their talent development, considering that female football teams are not available in most cities, and so, those living in cities without female football teams would have to travel to cities that do and this means that they would have to bear the transport costs. In addition, female football players have been viewed negatively by the society – they are viewed as unruly, transgressors, a shame to the society and religion, among others - and such negative views are reinforced by the media as well. Moreover, the personal life of female players is often disturbed, and they often received sexist remarks from spectators. Indeed, study 2 showed that the

experiences for females on average were of lower quality than males, as demonstrated by lower mean scores across all three factors.

Moreover, Jordanian female players were discriminated for wearing scarf (Hijab), and so, they had been banned from playing (Hamzeh, 2015; 2017; Ayub, 2011). Many had decided to quit the sports following the ban. The Federation Internationale de Football Association (FIFA) was partly involved in this discrimination, demonstrating that FIFA was inconsiderate towards other cultures and religions. However, the involvement of Prince Ali had changed the situation, as the ban was lifted (Mroz, 2022).

As mentioned, talent development in Jordan lacked structure, and so, the system lacked merit. As a result, players with connections or resources were likely to be selected to play in national and international competitions. Bribery and selection based on connection are common culture in Jordanian sports. Hence, those without connection or money, would be at a disadvantage. As such, at international competition, Jordan lacks effective representation. Such culture has been reinforced by the handsome rewards conferred to athletes for taking part and for showing good performance in international competitions.

While there are financial and infrastructural challenges, there are many specific socio-cultural aspects that influence building an effective environment for talent development within a Jordanian context. These include societal attitudes toward sport, restrictions on females in particular related to sport participation and family expectations, poverty, corruption, the significant role that parents play in society and family, informal nature of sport participation at young ages, and religious and cultural practices. So while it will certainly help football development in Jordan if additional resource was given to coach education, coach and player

wages, professionalism, infrastructure, it is extremely important to understand that there are a number of sociocultural factors that must be taken into account when designing, developing and improving talent development processes in Jordan, particularly centring around family life and attitudes.

7.4 Research limitations and future studies

Several limitations of this thesis have been identified. Firstly, the participants were all football players, coaches or administrators, and so, the results cannot be generalized to those involved in others sports (e.g., basketball, hockey, etc.). However, while the thesis was focussed on football specifically, there are likely to be many implications that could be applied more generically across sport development in Jordan. Hence, it would be of value to expand this study to other sports. Another limitation of this study concerns the number of participants involved in the qualitative studies – only six participants were involved in study 3 and only eight people were involved in study 4, comprising six elite football coaches and two administrators. Hence, the generalizability of the obtained results may be limited. However, the sample inclusion criteria were very strict, for example all participants in study 3 were elite level footballers. This is a very small and difficult to access population. Furthermore, it should be noted that the sample size of this study was smaller than might have been possible because of the pandemic. Many potential participants were unwilling to be interviewed owing to the COVID-19 pandemic. Nonetheless, consistent key information from the chosen cohort was still achieved in these studies, as demonstrated by data saturation. Furthermore, considering the hurdles apparent in the findings facing the Jordanian players, coaches and administrators, future studies should use an exploratory qualitative approach, so that more experienced coaches, players, and administrators could be interviewed. Indeed, the results of study one and two may also be of value to other

countries, especially those comparable to Jordan, therefore, further studies should be expanded to include other Arab and Middle Eastern countries with similar characteristics to Jordan such as culture, language, religion, regulatory and sport environments. Indeed, the development and validation of the Arabic TDEQ will hopefully help facilitate research in other Arabic speaking countries. There are many examples in the literature of both applied research (e.g., Mills et al., 2014; Hall et al., 2019) and research focussed on understanding the environment using the TDEQ (e.g., Ivarsson et al., 2015; Li et al., 2019). These studies can be used to direct future work in Jordan and other Arabic speaking countries across the world.

References

- Aasland, E., Walseth, K., & Engelsrud, G. (2019). The constitution of the 'able' and 'less able' student in physical education in Norway. *Sport, Education and Society*.
- Abbott, A., & Collins, D. (2004). Eliminating the dichotomy between theory and practice in talent identification and development: considering the role of psychology. *Journal of sports sciences*, 22(5), 395-408.395-408.
- Abbott, A., Button, C., Pepping, G., & Collins, D. (2005). Unnatural selection: Talent identification and development in sport. *Nonlinear Dynamics Psychology And Life Sciences*, 9(1), 61-88.
- Abbott, A., Collins, D., & Martindale, R. (2002). *Talent identification and development: an academic review*. Edinburgh: Sport Scotland.
- Abbott, W., Williams, S., Brickley, G., & Smeeton, N. J. (2019). Effects of bio-banding upon physical and technical performance during soccer competition: a preliminary analysis. *Sports*, 7(8), 193.
- Abdullah, M. R., Musa, R. M., Maliki, A. B. H. M. B., Kosni, N. A., & Suppiah, P. K. (2016). Role of psychological factors on the performance of elite soccer players. *Journal of Physical Education and Sport*, 16(1), 170.
- Abdurasulov, R. A., Abdukodirovna, K. G., & Tirkashevich, T. L. (2021). The importance of motivation to avoid failure in achieving the success of young football players. *Psychology and Education Journal*, 58(2), 5029-5032.

Abrahams, D. (2021). Soccer Brain: The 4C Coaching Model for Developing World Class Player Mindsets and a Winning Football Team. Bennion Kearny Limited.

Adesanjo, O. (1997). The Coach and his Athlete. Application of Current Sports Coaching Techniques and Strategies. National Institute for Sports

Aidman, E., & Schofield, G. (2004). Personality and individual differences in sport. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, applications and issues* (p. 22–47). John Wiley & Sons Australia.

Al-Adwan, Talal Fawaz. (2012). The adequacy of general rules of the formation of professional sport contract in jordanian law : a comparative study. Master thesis. Amman Arab University.

Albdour, Wasem. (2019). Constructing strategy to promote the sport in southern county. PhD Theses, The University of Jordan.

Al-Hunaity, M., Al-Fawaer, A. M., & Allouzi, A. (2018). Contract of Professional Football Player in the Jordanian Clubs. *JL Pol'y & Globalization*, 75, 36.

Al-Hussein, K. (2020). The use of social media and perceptions of corruption within the Jordanian political elite. *Technology in Society*, 62, 101334.

Allen, M. S., Greenlees, I., & Jones, M. (2013). Personality in sport: A comprehensive review. *International Review of Sport and Exercise Psychology*, 6(1), 184-208.

Altwassi, Sadam, (2015.) The most common sport injuries among school players in teams in Amman. Master degree theses, The University of Jordan.

Alvarez, V. D. G., & Canedo, J. S. (2005). El efecto relativo de la edad en el fútbol. *Training fútbol: Revista técnica profesional*, (115), 36-42.

Andreff, W. (2011). Some comparative economics of the organization of sports: competition and regulation in north American vs. European professional team sports leagues. *The European Journal of Comparative Economics*, 8(1), 3-27.

Andronikos, G., Elumaro, A. I., Westbury, T., & Martindale, R. J. (2016). Relative age effect: implications for effective practice. *Journal of sports sciences*, 34(12), 1124-1131.

Andronikos, G., Westbury, T., & Martindale, R. J. (2019). Unsuccessful transitions: Understanding dropout from the athletes' perspective. *Athens Journal of Sports*, 6(4), 195-214.

Andronikos, G., Westbury, T., Brazo-Sayavera, J., Olivares, P. R., & Martindale, R. J. (2021). Factors contributing to the quality of the junior-to-senior transition in Greek athletes. *International Journal of Sport and Exercise Psychology*, 1-18.

Antwi, S. K., & Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management*, 7(3), 217-225.

Araar, A., & Timothy, A. T. (2006). Poverty and inequality nexus: illustrations with Nigerian data.

Ashford, M., Burke, K., Barrell, D., Abraham, A., & Poolton, J. (2020). The impact of rule modifications on player behaviour in a talent identification and development environment: A case study of the Rugby Football Union's Wellington Academy Rugby Festival. *Journal of Sports Sciences*, 38(23), 2670-2676.

Augestad, P., Bruu, M., & Telseth, F. (2020). 'You create your own luck, in a way' About Norwegian footballers' understanding of success, in a world where most fail. *Soccer & Society*, 1-13.

Ayub, A. (2011). A closer look at FIFA's hijab ban: What it means for Muslim players and lessons learned. *SAIS Review of International Affairs*, 31(1), 43-50.

Backstrom, C. H., & Hursch-Cesar, G. (1981). Conducting interviews. *Survey research*, 2.

Bailey, R., & Collins, D. (2013). The standard model of talent development and its discontents. *Kinesiology Review*, 2(4), 248-259.

Bailey, R., & Morley, D. (2002). Talent in physical education and sport: The Excellence in Cities initiative. *Bulletin of Physical Education*, 38(2), 111-117.

Bailey, R., Morley, D., & Dismore, H. (2009). Talent development in physical education: A national survey of policy and practice in England. *Physical Education and Sport Pedagogy*, 14(1), 59-72.

Baker, J. O. E., Schorer, J., Cobley, S., Schimmer, G., & Wattie, N. (2009). Circumstantial development and athletic excellence: The role of date of birth and birthplace. *European Journal of Sport Science*, 9(6), 329-339.

Baker, J. R., Abernethy, A. B., & Cote, J. (1999). The role of sport-specific training in attaining expertise in team ball sports.

Baker, J., & Young, B. (2014). 20 years later: deliberate practice and the development of expertise in sport. *International Review of Sport and Exercise Psychology*, 7(1), 135-157.

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.

Baker, J., Côté, J., & Abernethy, B. (2003a). Learning from experts: Practice activities of expert decision makers in sport. *Research Quarterly for Exercise and Sport*, 74, 342–347.

Baker, J., Horton, S., Robertson-Wilson, J., & Wall, M. (2003). Nurturing sport expertise: factors influencing the development of elite athlete. *Journal of sports science & medicine*, 2(1), 1.

Baker, J., Schorer, J., & Cobley, S. (2010). Relative age effects. *Sportwissenschaft*, 40(1), 26-30.

Baker, J., Wilson, S., Johnston, K., Dehgansai, N., Koenigsberg, A., De Vegt, S., & Wattie, N. (2020). Talent research in sport 1990–2018: a scoping review. *Frontiers in Psychology*, 3067.

Balyi, I., & Hamilton, A. (2004). Long-term athlete development: Trainability in childhood and adolescence. *Olympic coach*, 16(1), 4-9.

Bargman, R.E. (1970). Interpretation and use of a generalized discriminant function. In R.C. Bose, I.M. Chakravarti, P.C. Mahalanobis, C.R. Rao & K.J.C. Smith (Eds.), *Essays in probability and statistics* (pp. 35–60). Chapel Hill: University of North Carolina Press.

Barnes, B. R. (2019). Transformative mixed methods research in South Africa: Contributions to social justice. In

Barnes, B. R. (2019). Transformative mixed methods research in South Africa: Contributions to social justice. *Transforming research methods in the social sciences: Case studies from South Africa*, 303-16.

Barnsley, M. F., & Demko, S. (1985). Iterated function systems and the global construction of fractals. *Proceedings of the Royal Society of London. A. Mathematical and Physical Sciences*, 399(1817), 243-275.

Barnsley, R. H., Thompson, A. H., & Barnsley, P. E. (1985). Hockey success and birthdate: The relative age effect. *Canadian Association for Health, Physical Education, and Recreation*, 51(1), 23-28.

Barnsley, R., & Thompson, A. (1985). Gifted or learning disabled? The age of entering school may make the difference. *Early Childhood Education*, 18, 11-14.

Barracough, A. S., Till, K., Kerr, A., & Emmonds, S. (2022). Methodological Approaches to Talent Identification in Team Sports: A Narrative Review. *Sports*, 10(6), 81.

Baškarada, S., & Koronios, A. (2018). A philosophical discussion of qualitative, quantitative, and mixed methods research in social science. *Qualitative Research Journal*.

Baxter-Jones, A. D. G., Helms, P., Maffulli, N., Baines-Preece, J. C., & Preece, M. (1995). Growth and development of male gymnasts, swimmers, soccer and tennis players: a longitudinal study. *Annals of human biology*, 22(5), 381-394.

Bennett, K. J., Novak, A. R., Pluss, M. A., Stevens, C. J., Coutts, A. J., & Fransen, J. (2018). The use of small-sided games to assess skill proficiency in youth soccer players: a talent identification tool. *Science and Medicine in Football*, 2(3), 231-236.

Bennett, K. J., Vaeyens, R., & Fransen, J. (2019). Creating a framework for talent identification and development in emerging football nations. *Science and Medicine in Football*, 3(1), 36-42.

Berg, B. L. (2004). *Qualitative Research Methods for the Social Sciences*, Allyn and Bacon, Boston.

Bezuglov, E. N., Nikolaidis, P. T., Khaitin, V., Usmanova, E., Luibushkina, A., Repetiuk, A., ... & Knechtle, B. (2019). Prevalence of relative age effect in russian soccer: The role of chronological age and performance. *International journal of environmental research and public health*, 16(21), 4055.

Bezuglov, E. N., Nikolaidis, P. T., Khaitin, V., Usmanova, E., Luibushkina, A., Repetiuk, A., ... & Knechtle, B. (2019). Prevalence of relative age effect in Russian soccer: the role of chronological age and performance. *International journal of environmental research and public health*, 16(21), 4055.

Biddle, C., & Schafft, K. (2015). Axiology and anomaly in the practice of mixed methods research: A Kuhnian analysis Axiology and Anomaly in the. *Journal of Mixed Methods Research*, 9(4), 320-334.

Biobanding

Bloom, B. (1985). *Developing talent in young people*. BoD–Books on Demand.

Bonga, W. G. (2021). Corruption Prevalence in SADC Regional Bloc. *Quest Journals' Journal of Research in Humanities and Social Science*, 9(1), 08-16.

Bouwer, J. (2010). Evidence-based coaching (ebc): uitdaging voor coaching als professie. *Supervisie en coaching*, 27(3), 127-134.

- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative research in sport, exercise and health*, 11(4), 589-597.
- Brazo-Sayavera, J., Olivares, P. R., Andronikos, G., & Martindale, R. J. (2017). Spanish version of the Talent Development Environment Questionnaire for sport: Cultural adaptation and initial validation. *PloS one*, 12(6), e0177721.
- Brislin, R. W. (1980). Translation and content analysis of oral and written materials. *Methodology*, 389-444.
- Brustio, P. R., Lupo, C., Ungureanu, A. N., Frati, R., Rainoldi, A., & Boccia, G. (2018). The relative age effect is larger in Italian soccer top-level youth categories and smaller in Serie A. *PloS one*, 13(4), e0196253.
- Bryman, A. (2004). Qualitative research on leadership: A critical but appreciative review. *The leadership quarterly*, 15(6), 729-769.
- Bryman, A. (2004). Qualitative research on leadership: A critical but appreciative review. *The leadership quarterly*, 15(6), 729-769.
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford: University Press.
- Bryman, A., & Bell, E. (2007). *Business research methods* (2nd ed.). Oxford; New York: Oxford University Press.
- Burke, L. A., & Miller, M. K. (2001). Phone interviewing as a means of data collection: Lessons learned and practical recommendations. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 2, No. 2).

Cameron, R. (2011). Mixed methods research: The five Ps framework. *Electronic journal of business research methods*, 9(2), pp96-108.

Carless, D., & Douglas, K. (2008). Narrative, identity and mental health: How men with

Carless, D., & Douglas, K. (2012). Stories of success: Cultural narratives and personal stories of elite and professional athletes. *Reflective Practice*, 13(3), 387-398.

Carless, D., & Douglas, K. (2013). "In the boat" but "selling myself short": Stories, narratives, and identity development in elite sport. *The Sport Psychologist*, 27(1), 27-39.

Carpenter, P. J., Scanlan, T. K., Simons, J. P., & Lobel, M. (1993). A test of the sport commitment model using structural equation modeling. *Journal of Sport and exercise Psychology*, 15(2), 119-133.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate behavioral research*, 1(2), 245-276.

Cetinkalp, Z. K., & Turksoy, A. (2011). Goal orientation and self-efficacy as predictors of male adolescent soccer players' motivation to participate. *Social Behavior and Personality: an international journal*, 39(7), 925-934.

Cobley, S. P., Schorer, J., & Baker, J. (2008). Relative age effects in professional German soccer: A historical analysis. *Journal of sports sciences*, 26(14), 1531-1538.

Cobley, S., Abbott, S., Dogramaci, S., Kable, A., Salter, J., Hintermann, M., & Romann, M. (2018). Transient relative age effects across annual age groups in national level Australian swimming. *Journal of science and medicine in sport*, 21(8), 839-845.

Cobley, S., Baker, J., Wattie, N., & McKenna, J. (2009). Annual age-grouping and athlete development. *Sports medicine*, 39(3), 235-256.

Cobley, S., Baker, J., Wattie, N., & McKenna, J. (2009). Annual age-grouping and athlete development. *Sports medicine*, 39(3), 235-256.

Collins D., McNamara A., Cruickshank A. (2019). Research and practice in talent identification and development – some thoughts on the state of play. *J. Appl. Sport Psychol.* 31, 340–351. 10.1080/10413200.2018.1475430]

Comrey, A. L., & Lee, H. B. (1992). Interpretation and application of factor analytic results. Comrey AL, Lee HB. *A first course in factor analysis*, 2, 1992.

Conrad, F., Blair, J., & Tracy, E. (1999, November). Verbal reports are data! A theoretical approach to cognitive interviews. In *Proceedings of the Federal Committee on Statistical Methodology Research Conference* (pp. 11-20). Tuesday B Sessions.

corruption

Costa, A. M., Grazina, C., Miragaia, D. A. M., Crisóstomo, L., & Carvalho, P. G. D. (2017). Sports development environment in swimming clubs: a preliminary study on Portuguese swimmers' perceptions. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 12(2), 231-236.

Costa, P. T.Jr. and McCrae, R. R.(1992b)Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual. Odessa, FL: Psychological Assessment Resources.

Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical assessment, research, and evaluation*, 10(1), 7.

Côté, F., Collard, J. F., & Julien, J. P. (1993). Progressive neuronopathy in transgenic mice expressing the human neurofilament heavy gene: a mouse model of amyotrophic lateral sclerosis. *Cell*, 73(1), 35-46.

Côté, J. (1999). The influence of the family in the development of talent in sport. *The sport psychologist*, 13(4), 395-417.

Côté, J., & Fraser-Thomas, J. (2007). Play, practice, and athlete development. In *Developing sport expertise* (pp. 39-50). Routledge.

Cote, J., & Hay, J. (2002). Family influences on youth sport performance and participation. In J. Silva & D. Stevens, *Psychological Foundations of Sport* (1st ed., pp. 503-519). Boston, MA: Allyn & Bacon.

Cote, J., Baker, J. R., & Abernethy, A. B. (1999). Differences in key developmental experiences of expert and novice players in team sports.

Côté, J., Baker, J., & Abernethy, A. B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sports.

Côté, J., Baker, J., & Abernethy, B. (2007). Practice and play in the development of sport expertise. *Handbook of sport psychology*, 3, 184-202.

Côté, J., Macdonald, D. J., Baker, J., & Abernethy, B. (2006). When “where” is more important than “when”: Birthplace and birthdate effects on the achievement of sporting expertise. *Journal of sports sciences*, 24(10), 1065-1073.

Côté, J., Murata, A., Turnnidge, J., & Hancock, D. J. (2021). 2 Situating birth advantages within the youth sport system. *Birth Advantages and Relative Age Effects in Sport: Exploring Organizational Structures and Creating Appropriate Settings*, 2.

Côté, J., Murata, A., Turnnidge, J., & Hancock, D. J. (2021). Situating birth advantages within the youth sport system. *Birth Advantages and Relative Age Effects in Sport: Exploring Organizational Structures and Creating Appropriate Settings*, 15-29.

Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: Perceptions of players, parents, and coaches. *Journal of sports sciences*, 28(7), 699-716.

Coutinho, P., Ribeiro, J., da Silva, S. M., Fonseca, A. M., & Mesquita, I. (2021). The Influence of Parents, Coaches, and Peers in the Long-Term Development of Highly Skilled and Less Skilled Volleyball Players. *Frontiers in Psychology*, 12.

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, California: Sage.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Cumming, S. P., Lloyd, R. S., Oliver, J. L., Eisenmann, J. C., & Malina, R. M. (2017). Bio-banding in sport: applications to competition, talent identification, and strength and conditioning of youth athletes. *Strength & Conditioning Journal*, 39(2), 34-47.

Cumming, S. P., Searle, C., Hemsley, J. K., Haswell, F., Edwards, H., Scott, S., ... & Malina, R. M. (2018). Biological maturation, relative age and self-regulation in male professional academy soccer players: A test of the underdog hypothesis. *Psychology of Sport and Exercise*, 39, 147-153.

Cunningham, I., Mergler, J., & Wattie, N. (2022). Training and development in sport officials: A systematic review. *Scandinavian journal of medicine & science in sports*.

Cupples, B. B. (2020). *Holistic Athlete Development in Australian Rugby League: From a Better Understanding of Developmental Environments to Addressing Individual Challenges* (Doctoral dissertation, University of Sydney).

Cupples, B., O'Connor, D., & Cobley, S. (2021). Assessing the ecological-context strengths of school-based talent development programs in rugby league. *Research Quarterly for Exercise and Sport*, 92(4), 723-735.

de la Rubia, A., Lorenzo-Calvo, J., & Lorenzo, A. (2020). Does the relative age effect influence short-term performance and sport career in team sports? A qualitative systematic review. *Frontiers in Psychology*, 1947.

Del Campo, D. G. D., Vicedo, J. C. P., Villora, S. G., & Jordan, O. R. C. (2010). The relative age effect in youth soccer players from Spain. *Journal of sports science & medicine*, 9(2), 190.

- Delorme, N., Boiché, J., & Raspaud, M. (2009). The relative age effect in elite sport: the French case. *Research quarterly for exercise and sport*, 80(2), 336-344.
- Delorme, N., Boiché, J., & Raspaud, M. (2010). Relative age and dropout in French male soccer. *Journal of sports sciences*, 28(7), 717-722.
- Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of mixed methods research*, 2(3), 270-283.
- Dove, M. A. (2018). Socio-ecological factors in talent development in cricketers in a diverse society.
- Doyle, J. R., & Bottomley, P. A. (2018). Relative age effect in elite soccer: More early-born players, but no better valued, and no paragon clubs or countries. *PloS one*, 13(2), e0192209.
- Doyle, J. R., & Bottomley, P. A. (2019). The relative age effect in European elite soccer: A practical guide to Poisson regression modelling. *PloS one*, 14(4), e0213988.
- Duckworth, V., & Maxwell, B. (2015). Extending the mentor role in initial teacher education: embracing social justice. *International Journal of Mentoring and Coaching in Education*, 4(1), 4-20.
- Dugdale, J. H., McRobert, A. P., & Unnithan, V. B. (2021). “He’s just a wee laddie”: The relative age effect in male Scottish soccer. *Frontiers in Psychology*, 103.
- Durand-Bush, N., & Salmela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of world and Olympic champions. *Journal of applied sport psychology*, 14(3), 154-171.

Elferink-Gemser, M., Visscher, C., Lemmink, K., & Mulder, T. (2004). Relation between multidimensional performance characteristics and level of performance in talented youth field hockey players. *Journal Of Sports Sciences*, 22(11-12), 1053-1063.

Elumaro, A. I. (2015). *Understanding the Nature of Talent Identification and Development in the Nigerian Context* (Doctoral dissertation, Edinburgh Napier University).

Elumaro, A. I., Georgios, A., Martindale, R. J. J., & Westbury, T. (2016). Talent development environment in Nigeria: athletes' perceptions of barriers, opportunities and facilitators. *American Journal of Sports Science*, 4(6), 98-104.

English, C., Nash, C., & Martindale, R. (2018). The effects of structural change: an investigation into the South African cricket development pathway. *International Journal of Sport Policy and Politics*, 10(2), 371-391.

Ericsson, K. (2015). Acquisition and Maintenance of Medical Expertise. *Academic Medicine*, 90(11), 1471-1486.

Ericsson, K. A. (2004). Deliberate practice and the acquisition and maintenance of expert performance in medicine and related domains. *Academic medicine*, 79(10), S70-S81.

Ericsson, K. A. (2007). Deliberate practice and the modifiability of body and mind: toward a science of the structure and acquisition of expert and elite performance. *International journal of sport psychology*.

Ericsson, K. A. (2020). Towards a science of the acquisition of expert performance in sports: Clarifying the differences between deliberate practice and other types of practice. *Journal of sports sciences*, 38(2), 159-176.

- Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological review*, 100(3), 363.
- Erikstad, M. K., Høigaard, R., Johansen, B. T., Kandala, N. B., & Haugen, T. (2018). Childhood football play and practice in relation to self-regulation and national team selection; a study of Norwegian elite youth players. *Journal of sports sciences*, 36(20), 2304-2310.
- Eze, W. (2015). Eradication of poverty in Nigeria through physical education and sports. *International Journal of Current Research And Academic Review*, 3(6), 197-203.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological methods*, 4(3), 272.
- Field, A. (2006). *Discovering statistics using SPSS*. London: Sage
- Fleming, S. (2015). *Searching for the Jordanian Nation: Archaeology and the Fluidity of Nationalism* (Doctoral dissertation, Brandeis University).
- Ford, P. R., Coughlan, E. K., Hodges, N. J., and Williams, A. M. (2015). "Deliberate practice in sport," in *Routledge Handbook of Sports Expertise*, eds J. Baker and D. Farrow (London: Routledge), 347–363.
- Ford, P. R., Ward, P., Hodges, N. J., & Williams, A. M. (2009). The role of deliberate practice and play in career progression in sport: the early engagement hypothesis. *High ability studies*, 20(1), 65-75.

Forsyth BH, Lessler JT. (1991) Cognitive laboratory methods: a taxonomy. In: Bierner, P., Groves, R., Lyberg, L., Mathiowetz, N., Sudman, S. Editors. Measurement errors in surveys. New York: Wiley.

Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High ability studies*, 15(2), 119-147.

Gagné, F. (2005). From gifts to talents. *Conceptions of giftedness*, 2, 98-119.

Gagné, F. (2011). Academic talent development and the equity issue in gifted education. *Talent Development & Excellence*, 3(1).

Gagné, F. (2013). The DMGT: Changes within, beneath, and beyond. *Talent Development & Excellence*, 5(1), 5-19.

Gallagher, J. R. (1969). Problems in matching competitors. Adolescence, athletics and competitive sports. *Clinical pediatrics*, 8(8), 434-436.

Gangsø, K., Aspvik, N. P., Mehus, I., Høigaard, R., & Sæther, S. A. (2021). Talent Development Environments in Football: Comparing the Top-Five and Bottom-Five-Ranked Football Academies in Norway. *International Journal of Environmental Research and Public Health*, 18(3), 1321.

García Álvarez, V. D., & Salvadores, J. (2005). El efecto relativo de la edad en el fútbol. *Training fútbol*, 115, 36-42.

Gesbert, V., Crettaz von Roten, F., & Hauw, D. (2021). Reviewing the role of the environment in the talent development of a professional soccer club. *PloS one*, 16(2), e0246823.

Ghiara, V. (2019). Disambiguating the role of paradigms in mixed methods research. *Journal of mixed methods research*, 14(1), 11-25.

Gill, A. (Ed.). (2021). *Foundations of Sports Coaching: Applying Theory to Practice*. Routledge.

Gillet, N., Vallerand, R. J., Amoura, S., & Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of sport and exercise*, 11(2), 155-161.

Gledhill, A. (2021). The Downside of Sports Injury: Poor Mental Health in Injured Athletes. In *The Psychology of Sports Injury* (pp. 63-75). Routledge.

Gledhill, A., & Harwood, C. (2019). Toward an understanding of players' perceptions of talent development environments in UK female football. *Journal of applied sport psychology*, 31(1), 105-115.

Gledhill, A., Harwood, C., & Forsdyke, D. (2017). Psychosocial factors associated with talent development in football: A systematic review. *Psychology of Sport and Exercise*, 31, 93-112.

Glogowska, M. (2015). Paradigms, pragmatism and possibilities: mixed-methods research in speech and language therapy. *International journal of language & communication disorders*, 1-10.

Goedhuys, M., Mohnen, P., & Taha, T. (2016). Corruption, innovation and firm growth: firm-level evidence from Egypt and Tunisia. *Eurasian Business Review*, 6(3), 299-322.

Goldkuhl, G. (2008). What kind of pragmatism in information systems research. In *AIS SIG Prag inaugural meeting*.

- González-Víllora, S., Pastor-Vicedo, J. C., & Cordente, D. (2015). Relative age effect in UEFA championship soccer players. *Journal of human kinetics*, 47(1), 237-248.
- Götze, M., & Hoppe, M. W. (2021). Relative age effect in elite german soccer: influence of gender and competition level. *Frontiers in Psychology*, 3725.
- Gould, D., & Maynard, I. (2009). Psychological preparation for the Olympic Games. *Journal of sports sciences*, 27(13), 1393-1408.
- Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of applied sport psychology*, 14(3), 172-204.
- Gould, D., Eklund, R. C., & Jackson, S. A. (1992). 1988 US Olympic wrestling excellence: II. Thoughts and affect occurring during competition. *The sport psychologist*, 6(4), 383-402.
- Greener, S. (2008). *Business research methods*. BookBoon.
- Grix, J., & Carmichael, F. (2012). Why do governments invest in elite sport? A polemic. *International journal of sport policy and politics*, 4(1), 73-90.
- Grossmann, B., & Lames, M. (2013). Relative Age Effect (RAE) in football talents—the role of youth academies in transition to professional status in Germany. *International Journal of Performance Analysis in Sport*, 13(1), 120-134.
- Gucciardi, D. F., & Jackson, B. (2015). Understanding sport continuation: An integration of the theories of planned behaviour and basic psychological needs. *Journal of science and medicine in sport*, 18(1), 31-36.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18(1), 59-82.

Guest, G., Namey, E. E., & Mitchell, M. L. (2013). *Collecting qualitative data: A field manual for applied research*. Sage.

Guest, G., Namey, E. E., & Mitchell, M. L. (2013). *Collecting qualitative data: A field manual for applied research*. Sage.

Guetat, I. (2006). The effects of corruption on growth performance of the MENA countries. *Journal of Economics and Finance*, 30(2), 208-221.

Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7).

Hall, A. J., Jones, L., & Martindale, R. J. (2019). The talent development environment questionnaire as a tool to drive excellence in elite sport environments. *International Sport Coaching Journal*, 6(2), 187-198.

Hall, R. (2013). Mixed methods: In search of a paradigm. *Conducting research in a changing and challenging world*, 71-78.

Hamzeh, M. (2015). Jordanian national football Muslimat players: Interrupting Islamophobia in FIFA's hijab ban. *Physical Education and Sport Pedagogy*, 20(5), 517-531.

Hamzeh, M. (2017, July). FIFA's double hijabophobia: A colonialist and Islamist alliance racializing Muslim women soccer players. In *Women's Studies International Forum* (Vol. 63, pp. 11-16). Pergamon.

- Hancock, D. J., Coutinho, P., Côté, J., & Mesquita, I. (2018). Influences of population size and density on birthplace effects. *Journal of sports sciences*, 36(1), 33-38.
- Harman, H. H. (1976). *Modern factor analysis*. University of Chicago press.
- Harwood, C. G., & Knight, C. J. (2015). Parenting in youth sport: A position paper on parenting expertise. *Psychology of sport and exercise*, 16, 24-35.
- Harwood, C. G., Douglas, J. P., & Minniti, A. M. (2012). Talent development: The role of the family.
- Hassan, S. (2014). *Sports Professionalism*. Loyalty Library, Cairo.
- Hatamleh, M. R. (2010). The Effect of Sport Injuries on Athletes' Emotions and Behavior as Perceived By Sport Trainers in Jordan
- Hawthorne, G., Richardson, J., & Osborne, R. (1999). The Assessment of Quality of Life (AQoL) instrument: a psychometric measure of health-related quality of life. *Quality of life research*, 8(3), 209-224.
- Heilmann, F., Memmert, D., Weinberg, H., & Lautenbach, F. (2022). The relationship between executive functions and sports experience, relative age effect, as well as physical maturity in youth soccer players of different ages. *International Journal of Sport and Exercise Psychology*, 1-19.
- Helsen, W. F., Baker, J., Michiels, S., Schorer, J., Van Winckel, J., & Williams, A. M. (2012). The relative age effect in European professional soccer: Did ten years of research make any difference?. *Journal of sports sciences*, 30(15), 1665-1671.

Helsen, W. F., Starkes, J. L., & Van Winckel, J. (1998). The influence of relative age on success and dropout in male soccer players. *American Journal of Human Biology: The Official Journal of the Human Biology Association*, 10(6), 791-798.

Helsen, W. F., Van Winckel, J., & Williams, A. M. (2005). The relative age effect in youth soccer across Europe. *Journal of sports sciences*, 23(6), 629-636.

Heneghan, J. F., & Herron, M. C. (2019). Relative age effects in American professional football. *Journal of quantitative analysis in sports*, 15(3), 185-202.

Henriksen, K., Larsen, C. H., & Christensen, M. K. (2014). Looking at success from its opposite pole: The case of a talent development golf environment in Denmark. *International Journal of Sport and Exercise Psychology*, 12(2), 134-149.

Henriksen, K., Stambulova, N., & Roessler, K. K. (2010). Holistic approach to athletic talent development environments: A successful sailing milieu. *Psychology of sport and exercise*, 11(3), 212-222.

Henriksen, K., Stambulova, N., & Roessler, K. K. (2011). Riding the wave of an expert: A successful talent development environment in kayaking. *The sport psychologist*, 25(3), 341-362.

Hill, A., MacNamara, Á., & Collins, D. (2015). Psychobehaviorally based features of effective talent development in rugby union: A coach's perspective. *The Sport Psychologist*, 29(3), 201-212.

Hill, A., MacNamara, Á., & Collins, D. (2019). Development and initial validation of the Psychological Characteristics of Developing Excellence Questionnaire version 2 (PCDEQ2). *European journal of sport science*, 19(4), 517-528.

Hill, A., MacNamara, Á., Collins, D., & Rodgers, S. (2016). Examining the role of mental health and clinical issues within talent development. *Frontiers in psychology*, 6, 2042.

Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and assessment*, 9(1- 2), 40-51.

Holt, N. L., & Dunn, J. G. H. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, 16, 199-219.

Holt, N. L., Tamminen, K. A., Black, D. E., Mandigo, J. L., & Fox, K. R. (2009). Youth sport parenting styles and practices. *Journal of sport and exercise psychology*, 31(1), 37-59.

Höner, O., and Feichtinger, P. (2016). Psychological talent predictors in early adolescence and their empirical relationship with current and future performance in soccer. *Psychol. Sport Exerc.* 25, 17–26. doi: 10.1016/j. psychsport.2016.03.004

Horrocks, D. E., McKenna, J., Whitehead, A., Taylor, P. J., & Morley, A. M. (2016). Qualitative perspectives on how Manchester United Football Club developed and sustained serial winning. *International Journal of Sports Science & Coaching*, 11(4), 467-477.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.

Ifeoma, O. R., Purity, N. O., & Okoye-Nebo, C. (2015). Effective talent management: Key to organisational success. *Journal of Policy and Development Studies*, 9(2), 95-106.

- Ivarsson, A., Stenling, A., Fallby, J., Johnson, U., Borg, E., & Johansson, G. (2015). The predictive ability of the talent development environment on youth elite football players' well-being: A person-centered approach. *Psychology of Sport and Exercise*, 16, 15-23.
- Jiménez, I. P., & Pain, M. T. (2008). Relative age effect in Spanish association football: Its extent and implications for wasted potential. *Journal of sports sciences*, 26(10), 995-1003.
- John Wang, C. K., Sproule, J., McNeill, M., Martindale, R. J., & Lee, K. S. (2011). Impact of the talent development environment on achievement goals and life aspirations in Singapore. *Journal of Applied Sport Psychology*, 23(3), 263-276.
- Johnson, B., & Christensen, L. (2012). *Educational research: quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage publications.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1, 112-133.
- Johnston, K., Wattie, N., Schorer, J., & Baker, J. (2018). Talent identification in sport: a systematic review. *Sports Medicine*, 48(1), 97-109.
- Jones, C., Visek, A. J., Barron, M. J., Hyman, M., & Chandran, A. (2019). Association between relative age effect and organisational practices of American youth football. *Journal of sports sciences*, 37(10), 1146-1153.
- Jonker, L., Elferink-Gemser, M.T., Toering, T.T., Lyons, J & Visscher, C. (2010). Academic

- Jowett, S., Nicolas, M., & Yang, S. (2017). Unravelling the links between coach behaviours and coach-athlete relationships. *European Journal of Sports & Exercise Science*, 5(3), 10-19.
- Kanniyar, A., George, A., & Valiyakath, S. (2015). Personality traits: An analytical study between sedentary males and sports males. *Science, Movement and Health*, 15 (1), 5–9.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and social psychology bulletin*, 22(3), 280-287.
- Keith, N., & Ericsson, K. (2007). A deliberate practice account of typing proficiency in everyday typists. *Journal of Experimental Psychology: Applied*, 13(3), 135-145.
- Kelly, A. L., Jackson, D. T., Taylor, J. J., Jeffreys, M. A., & Turnnidge, J. (2020). “Birthday-banding” as a strategy to moderate the relative age effect: a case study into the England Squash Talent Pathway. *Frontiers in Sports and Active Living*, 145.
- Kelly, S., & O’Regan, N. (2021). The Union of European Football Associations 2020 Coaching Convention Update and Coach Education in the Football Association of Ireland. *International Sport Coaching Journal*, 8(3), 382-393.
- Kim, T., & Marler, L. (2020). Are non-blood related “family” members treated differently? Determinants of bifurcation bias among family members in the family firm. *Journal of Family Business Management*.
- Kingston, K. M., & Wilson, K. M. (2008). The application of goal setting in sport. In *Advances in applied sport psychology* (pp. 85-133). Routledge.

- Kingston, K., Edwards, T., Gould, D., & Hardy, L. (2002). A qualitative analysis of catastrophic performances and the associated thoughts, feelings, and emotions.
- Knight, C. J. (2017). Family influences on talent development in sport. In *Routledge handbook of talent identification and development in sport* (pp. 181-191). Routledge.
- Knight, C. J., Berrow, S. R., & Harwood, C. G. (2017). Parenting in sport. *Current Opinion in Psychology*, 16, 93-97.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Basic psychological needs scales. *Journal of Personality and Social Psychology*, 79(3), 367-384.
- Laborde, S., Allen, M. S., Katschak, K., Mattonet, K., & Lachner, N. (2020). Trait personality in sport and exercise psychology: A mapping review and research agenda. *International Journal of Sport and Exercise Psychology*, 18(6), 701-716.
- Laborde, S., Dosseville, F., & Allen, M. S. (2016). Emotional intelligence in sport and exercise: A systematic review. *Scandinavian journal of medicine & science in sports*, 26(8), 862-874.
- Lagestad, P., Steen, I., & Dalen, T. (2018). Inevitable relative age effects in different stages of the selection process among male and female youth soccer players. *Sports*, 6(2), 29.
- Lago-Fuentes, C., Rey, E., Padrón-Cabo, A., Prieto-Troncoso, J., & Garcia-Núñez, J. (2020). The relative age effect in professional futsal players. *Journal of human kinetics*, 72(1), 173-183.
- Larsen, C. H., Alfermann, D., Henriksen, K., & Christensen, M. K. (2013). Successful talent development in soccer: The characteristics of the environment. *Sport, Exercise, and Performance Psychology*, 2(3), 190.

Larsen, C. H., Louise, S. K., Pyrdol, N., Sæther, S. A., & Henriksen, K. (2020). A world class academy in professional football: The case of Ajax Amsterdam. *Dansk Idrætspsykologisk Forum*.

Larsen, C., Alfermann, D., & Christensen, M. (2012). Psychosocial skills in a youth soccer academy: A holistic ecological perspective. *Sport Science Review*, 21(3-4), 51-74.

Lee, M. S., Kim, Y. S., & Choi, Y. J. (2012). The relationship between sport talent development environment and achievement goal in sport of college athletes. *Journal of the Korean Data and Information Science Society*, 23(3), 475-485.

Li, C., Martindale, R., & Sun, Y. (2019). Relationships between talent development environments and mental toughness: The role of basic psychological need satisfaction. *Journal of sports sciences*, 37(18), 2057-2065.

Li, C., Martindale, R., Wu, Y., & Si, G. (2018). Psychometric properties of the Talent Development Environment Questionnaire with Chinese talented athletes. *Journal of sports sciences*, 36(1), 79-85.

Li, C., Wang, C. J., & Pyun, D. Y. (2014). Talent development environmental factors in sport: A review and taxonomic classification. *Quest*, 66(4), 433-447.

Li, C., Wang, C. K. J., Pyun, D. Y., & Martindale, R. (2015). Further development of the talent development environment questionnaire for sport. *Journal of Sports Sciences*, 33, 1831–1843.
doi:10.1080/02640414.2015.1014828

Ling, A., Teo, E.W. and Chin, N.S., 2019. Sport Commitment among Malaysian Racquet Sports Athletes. *The Malaysian journal of medical sciences: MJMS*, 26(4), p.86.

Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American statistical Association*, 83(404), 1198-1202.

Lüdin, D., Donath, L., Cobley, S., & Romann, M. (2021). Effect of bio-banding on physiological and technical-tactical key performance indicators in youth elite soccer. *European journal of sport science*, 1-9.

Ma, L. (2012). Some philosophical considerations in using mixed methods in library and information science research. *Journal of the American Society for Information Science and Technology*, 63(9), 1859-1867.

Macnamara, A., & Collins, D. (2013). Do mental skills make champions? Examining the discriminant function of the psychological characteristics of developing excellence questionnaire. *Journal of sports sciences*, 31(7), 736-744.

MacNamara, Á., Button, A., & Collins, D. (2010). The role of psychological characteristics in facilitating the pathway to elite performance part 2: Examining environmental and stage-related differences in skills and behaviors. *The sport psychologist*, 24(1), 74-96.

MacNamara, Á., Holmes, P., & Collins, D. (2008). Negotiating transitions in musical development: The role of psychological characteristics of developing excellence. *Psychology of Music*, 36(3), 335-352.

Macnamara, B. N., Moreau, D., & Hambrick, D. Z. (2016). The relationship between deliberate practice and performance in sports: A meta-analysis. *Perspectives on Psychological Science*, 11(3), 333-350.

- Mair, J., Chien, M., Kelly, S. J., & Derrington, S. (2021). Social impacts of mega-events: a systematic narrative review and research agenda. *Journal of Sustainable Tourism*, 1-22.
- Makhadmeh, N. M. (2015). *Talent Identification and Development in Women's Football: Integrating Australian Insights in Jordan* (Doctoral dissertation, University of Canberra).
- Malina, R. M. (2003). Growth and maturity status of young soccer players. In *Science and soccer* (pp. 295-314). Routledge.
- Malina, R. M., & Beunen, G. (1996). Matching of opponents in youth sports. *The child and adolescent athlete*. Oxford, UK: Blackwell Science, 202-13.
- Malina, R. M., Cumming, S. P., Rogol, A. D., Coelho-e-Silva, M. J., Figueiredo, A. J., Konarski, J. M., & Kozieł, S. M. (2019). Bio-banding in youth sports: background, concept, and application. *Sports Medicine*, 49(11), 1671-1685.
- Mallett, C. (2011). Quality coaching, learning and coach development. *Japanese Journal of Sport Education Studies*, 30(2), 51-62.
- Mallett, C., & Côté, J. (2006). Beyond winning and losing: Guidelines for evaluating high performance coaches. *The Sport Psychologist*, 20(2), 213-221.
- Martindale, R. J. J., & Mortimer, P. (2011). Talent development environments: Key considerations for effective practice. *Performance psychology: A practitioner's guide*, 65-84.
- Martindale, R. J., Collins, D., & Abraham, A. (2007). Effective talent development: The elite coach perspective in UK sport. *Journal of applied sport psychology*, 19(2), 187-206.

- Martindale, R. J., Collins, D., & Daubney, J. (2005). Talent development: A guide for practice and research within sport. *Quest*, 57(4), 353-375.
- Martindale, R. J., Collins, D., Douglas, C., & Whike, A. (2013). Examining the ecological validity of the Talent Development Environment Questionnaire. *Journal of sports sciences*, 31(1), 41-47.
- Martindale, R. J., Collins, D., Wang, J. C., McNeill, M., Lee, K. S., Sproule, J., & Westbury, T. (2010). Development of the talent development environment questionnaire for sport. *Journal of sports sciences*, 28(11), 1209-1221.
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. In *Forum qualitative Sozialforschung/Forum: qualitative social research* (Vol. 11, No. 3).
- Maurice, S., Voelker, D. K., Kuklick, C., & Byrd, M. (2021). “We don’t always get it right”: Coaches’ perspectives on supporting injured athletes. *Sports Coaching Review*, 1-30.
- Mauro, M. P. (1996). The effects of corruption on growth, investment, and government expenditure. *International Monetary Fund*.
- McCrae, R., Costa, P. *Personality in Adulthood: A Five-Factor Theory perspective*, 2nd Ed, Guilford Press, NY, USA, 2003.
- McNulty, T., Zattoni, A., & Douglas, T. (2013). Developing corporate governance research through qualitative methods: A review of previous studies. *Corporate Governance: An International Review*, 21(2), 183-198.

- Méndez-Alonso, D., Prieto-Saborit, J. A., Bahamonde, J. R., & Jiménez-Arberás, E. (2021). Influence of Psychological Factors on the Success of the Ultra-Trail Runner. *International Journal of Environmental Research and Public Health*, 18(5), 2704.
- Mills, A., Butt, J., Maynard, I., & Harwood, C. (2014). Examining the development environments of elite English football academies: The players' perspective. *International Journal of Sports Science & Coaching*, 9(6), 1457-1472.
- Mitchell, A. (2018). A review of the mixed methods, pragmatism and abduction techniques. *The Electronic Journal of Business Research Methods*, 16, 103-116.
- Moesch, K., Elbe, A. M., Hauge, M. L., & Wikman, J. M. (2011). Late specialization: the key to success in centimeters, grams, or seconds (cgs) sports. *Scandinavian journal of medicine & science in sports*, 21(6), e282-e290.
- Molina-Azorin, J. F. (2016). Mixed methods research: An opportunity to improve our studies and our research skills. *European Journal of Management and Business Economics*, 25, 37-38. <https://doi.org/10.1016/j.redeen.2016.05.001>
- Morosanova, V. I. (2013). Self-regulation and personality. *Procedia-Social and Behavioral Sciences*, 86, 452-457.
- Morse, J. M. (1995). The significance of saturation. *Qualitative health research*, 5(2), 147-149.
- Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International journal of qualitative methods*, 1(2), 13-22.

Motz, D., Rathwell, S., Young, B. W., & Callary, B. (2022). Adult-oriented coaching practices are positively associated with quality sport experience criteria. *International Journal of Sport and Exercise Psychology*, 1-20.

Mujika*, I., Vaeyens*, R., Matthys, S. P., Santisteban, J., Goiriena, J., & Philippaerts, R. (2009). The relative age effect in a professional football club setting. *Journal of sports sciences*, 27(11), 1153-1158.

Murr, D., Feichtinger, P., Larkin, P., O'Connor, D., & Höner, O. (2018). Psychological talent predictors in youth soccer: A systematic review of the prognostic relevance of psychomotor, perceptual-cognitive and personality-related factors. *PloS One*, 13(10), e0205337.

Musculus, L., & Lobinger, B. H. (2018). Psychological characteristics in talented soccer players—recommendations on how to improve coaches' assessment. *Frontiers in Psychology*, 9, 41.

Nawafah, S., & Al-Amyan, M. (2013). Administrative Corruption as an Obstacle of Jordan Development from Academic Staff of Al Balaqa'Applied University Perspective. *Editorial Advisory Board*, 38(3), 438-446.

Neuman, W. L. (1997). *Social Research Methods*: Boston Allyn and Bacon.

Ojeme, R. U. (2000). Standard sport facilities, equipment and the new challenges 21st century and sport development in Nigeria. Abuja federal ministry of sports and social development, 112-122.

Oliver, K. L., & Hamzeh, M. (2010). "The Boys Won't Let Us Play" Fifth-Grade Mestizas Challenge Physical Activity Discourse at School. *Research Quarterly for Exercise and Sport*, 81(1), 38-51.

Olszewski-Kubilius, P. (2018). The role of the family in talent development. In Handbook of giftedness in children (pp. 129-147). Springer, Cham.

Onifade, A. (1985). Historical development of amateur sports and their administrative agencies in Nigeria: 19th-20th century. *Canadian Journal of History of Sport*, 16(2).

Osamah Ja'arah, Bassam Ma'ali, Mahmoud Ka'beer (2015). Measuring Appropriateness of Procedures of the Jordanian Audit Bureau to the Efforts of Anti-Corruption (A Prospective Study in the Jordanian Audit Bureau). *Studies, Administrative Sciences*, Volume 42, Issue 2,

Pain, M. A., & Harwood, C. (2007). The performance environment of the England youth soccer teams. *Journal of Sports Sciences*, 25(12), 1307-1324.

Panfil, R., Krawczynski, M., Marek, P., & Panfil, L. (2015). Coaching and coach education in Poland. *International Sport Coaching Journal*, 2(1), 50-63.

Papathomas, A., & Lavalley, D. (2012). Narrative constructions of anorexia and abuse: An athlete's search for meaning in trauma. *Journal of Loss and Trauma*, 17(4), 293-318.

Patton, M. (1987). *How to use qualitative methods in evaluation*. Newbury Park, Calif.: Sage

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Sage Publications.

Patton, M., & Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand

Pedraza-Ramirez, I., Musculus, L., Raab, M., & Laborde, S. (2020). Setting the scientific stage for esports psychology: A systematic review. *International Review of Sport and Exercise Psychology*, 13(1), 319-352.

performance and self-regulatory skills in elite youth soccer players. *Journal of Sports Sciences*, 28(14), 1605-1614.

Peterson, C. (1998). *Personality* (1st ed.). USA: Harcourt Brace Jovanovich

Picazo-Tadeo, A. J., & González-Gómez, F. (2010). Does playing several competitions influence a team's league performance? Evidence from Spanish professional football. *Central European Journal of Operations Research*, 18(3), 413-432.

Piepiora, P. (2021). Assessment of personality traits influencing the performance of men in team sports in terms of the Big Five. *Frontiers in Psychology*, 12, 29

Popovych, I. S., Blynova, O. Y., Nosov, P., Zinchenko, S., & Kononenko, O. (2021). Psychological factors of competitiveness of the women's youth handball team.

Prieto-Ayuso, A., León, M. P., Contreras-Jordán, O. R., & Morley, D. (2021). Spanish physical education teachers' perceptions of talent development. *European Physical Education Review*, 1356336X211010838.

Prieto-Ayuso, A., Pastor-Vicedo, J. C., González-Víllora, S., & Fernández-Río, J. (2020). Are Physical Education Lessons Suitable for Sport Talent Identification? A Systematic Review of the Literature. *International journal of environmental research and public health*, 17(6), 1965.

Raabe, J., Lauer, E. E., & Bejar, M. P. (2021). Mental Toughness in Youth Sport Coaches: A Phenomenological Exploration. *Journal of Applied Sport Psychology*, (just-accepted), 1-37.

Rađa, A., Padulo, J., Jelaska, I., Ardigo, L. P., & Fumarco, L. (2018). Relative age effect and second-tiers: No second chance for later-born players. *PloS one*, 13(8), e0201795.

- Rees, T., Hardy, L., Güllich, A., Abernethy, B., Côté, J., Woodman, T., ... & Warr, C. (2016). The great British medalists project: a review of current knowledge on the development of the world's best sporting talent. *Sports medicine*, 46(8), 1041-1058.
- Reverberi, E., Gozzoli, C., D'Angelo, C., Lanz, M., & Sorgente, A. (2021). The Self-Regulation of Learning–Self-Report Scale for Sport Practice: Validation of an Italian Version for Football. *Frontiers in psychology*, 12.
- Rhind, D. J., & Jowett, S. (2010). Relationship maintenance strategies in the coach-athlete relationship: The development of the COMPASS model. *Journal of applied sport psychology*, 22(1), 106-121.
- Ritchie, J., Lewis, J., & Elam, G. (2003). Designing and selecting samples. In J. Ritchie & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 77-108). London: Sage.
- Romann, M., & Fuchslocher, J. (2013). Relative age effects in Swiss junior soccer and their relationship with playing position. *European Journal of Sport Science*, 13(4), 356-363.
- Rossing, N. N., Stentoft, D., Flattum, A., Côté, J., & Karbing, D. S. (2018). Influence of population size, density, and proximity to talent clubs on the likelihood of becoming elite youth athlete. *Scandinavian journal of medicine & science in sports*, 28(3), 1304-1313.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of experimental social psychology*, 16(2), 172-186.

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860.

Saavedra, M. (2003). Football feminine—development of the African game: Senegal, Nigeria and South Africa. *Soccer & Society*, 4(2-3), 225-253.

Sale, J. E. M., Lohfeld LH, Brazil K., 2002. Revisiting the quantitative-qualitative debate: Implications for mixed-methods research, 43-53.

Salmi Abdel-Raouf (2018). The importance of coaches' awareness of the scientific foundations in the process of selecting talented football players from the junior category (9-12) years. Master degree theses, The University of Jordan.

Saltapidas, H., & Ponsford, J. (2007). The influence of cultural background on motivation for and participation in rehabilitation and outcome following traumatic brain injury. *The Journal of head trauma rehabilitation*, 22(2), 132-139.

Sarmiento, 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.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow, Essex: Person Education Limited.

Scanlan, T. K., Carpenter, P. J., Simons, J. P., Schmidt, G. W., & Keeler, B. (1993). An introduction to the sport commitment model. *Journal of sport and exercise psychology*, 15(1), 1-15.

Scanlan, T. K., Stein, G. L., & Ravizza, K. (1989). An in-depth study of former elite figure skaters: II. Sources of enjoyment. *Journal of sport and exercise psychology*, 11(1), 65-83.

Schlatter, N., & McDowall, A. (2014). Evidence-based EI coaching: A case study in the mining industry. *Coaching: An International Journal of Theory, Research and Practice*, 7(2), 144-151.

Seanor, M., Schinke, R. J., Stambulova, N. B., Henriksen, K., Ross, D., & Giffin, C. (2019). Catch the feeling of flying: Guided walks through a trampoline Olympic development environment. *Case Studies in Sport and Exercise Psychology*, 3(1), 11-19.

Seefeldt, V. (1981). Equating children for sports competition: Some common problems and suggested solutions. *Motor Development Theory into Practice*, 3, 13-22.

serious mental illness re-story their lives through sport and exercise. *Psychology of Sport and Exercise*, 9(5), 576-594.

Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 10, 319-334.

Sharma, R. K., & Agarwal, A. (1996). Role of reactive oxygen species in male infertility. *Urology*, 48(6), 835-850.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.

Short, S. E., & Short, M. W. (2005). Essay: Role of the coach in the coach-athlete relationship. *The Lancet*, 366, S29-S30.

Siekańska, M., & Wojtowicz, A. (2017). Polish version of research-based Model of Sport Talent Development Environment and adaptation of Talent Development Environment Questionnaire. *Studies in Sport Humanities*, 22, 7-17.

Simmons, C., & Paull, G. C. (2001). Season-of-birth bias in association football. *Journal of Sports Sciences*, 19(9), 677-686.

Skorski, S., Skorski, S., Faude, O., Hammes, D., & Meyer, T. (2016). The relative age effect in elite German youth soccer: Implications for a successful career. *International journal of sports physiology and performance*, 11(3), 370-376.

Soobaroyen, T., & Mahadeo, J. D. (2012). Do corporate governance codes improve board accountability? Evidence from an emerging economy. *Qualitative Research in Accounting & Management*.

Sousa, C., Torregrosa, M., Viladrich, C., Villamarín, F., & Cruz, J. (2007). The commitment of young soccer players. *Psicothema*, 19(2), 256-262.

Srivastava, S. C., Teo, T. S., & Devaraj, S. (2016). You Can't Bribe a Computer: Dealing with the Societal Challenge of Corruption Through ICT. *MIS Q.*, 40(2), 511-526.

Stambulova, N., Alfermann, D., Statler, T., & Côté, J. E. A. N. (2009). ISSP position stand: Career development and transitions of athletes. *International journal of sport and exercise psychology*, 7(4), 395-412.

Stevens, J. (1992). Should we use the univariate or the multivariate approach. *Applied Multivariate Statistics for the Social Sciences*, Hillsdale, NJ, Lawrence Erlbaum Associates, 454-456.

Stubbs, T., Kring, W., Laskaridis, C., Kentikelenis, A., & Gallagher, K. (2021). Whatever it takes? The global financial safety net, Covid-19, and developing countries. *World Development*, 137, 105171

Tabachnick, B. G., & Fidell, L. S. (2001). *Missing data. Using multivariate statistics* (4th edition). Boston, MA: Allyn and Bacon, 58-65.

Talent development in physical education: a national survey of policy and practice in England

Taylor, J., & Collins, D. (2022). A brief review of the literature. *Practical Sports Coaching*.

Taylor, R. D., & Collins, D. (2015). Reviewing the family unit as a stakeholder in talent development: is it undervalued?. *Quest*, 67(3), 330-343.

Taylor, R. D., Carson, H. J., & Collins, D. (2018). The impact of siblings during talent development: A longitudinal examination in sport. *Journal of Applied Sport Psychology*, 30(3), 272-287.

Taylor, R. D., Collins, D., & Carson, H. J. (2017). Sibling interaction as a facilitator for talent development in sport. *International Journal of Sports Science & Coaching*, 12(2), 219-230.

Taylor, R. D., Collins, D., & Carson, H. J. (2021). The Role of Siblings in Talent Development: Implications for Sport Psychologists and Coaches. *Frontiers in Sports and Active Living*, 3, 33.

Teshome, B., Mengistu, S., & Beker, G. (2015). The relationship between personality trait and sport performance: The case of national league football clubs in Jimma Town, Ethiopia. *Journal of Tourism, Hospitality and Sports*, 11.

Thomas, C. E., Abbott, G., Gastin, P. B., & Main, L. C. (2020). Construct validity and reliability of the Talent Development Environment Questionnaire in Caribbean youth track and field athletes. *Plos one*, 15(1), e0227815.

Thurlow, F. G., Kite, R. J., & Cumming, S. P. (2021). Revisiting youth player development in Australian Rules Football: Is there a place for bio-banding?. *International Journal of Sports Science & Coaching*, 17479541211042682.

Till, K., Cobley, S., O'Hara, J., Brightmore, A., Cooke, C., & Chapman, C. (2011). Using anthropometric and performance characteristics to predict selection in junior UK Rugby League players. *Journal of Science and Medicine in Sport*, 14(3), 264-269.

Till, K., Cobley, S., Wattie, N., O'Hara, J., Cooke, C., & Chapman, C. (2010). The prevalence, influential factors and mechanisms of relative age effects in UK Rugby League. *Scandinavian journal of medicine & science in sports*, 20(2), 320-329.

Tizro, M., & Badami, R. (2018). Description of the environment of talent development for elite adolescent basketball players and its relationship with mental skills. *Sport Psychology Studies (ie, mutaleat ravanshenasi varzeshi)*, 7(23), 51-66.

Toering, T. T., Elferink-Gemser, M. T., Jordet, G., & Visscher, C. (2009). Self-regulation and performance level of elite and non-elite youth soccer players. *Journal of sports sciences*, 27(14), 1509-1517.

Toering, T., Elferink-Gemser, M. T., Jonker, L., van Heuvelen, M. J., & Visscher, C. (2012). Measuring self-regulation in a learning context: Reliability and validity of the Self-Regulation of

Learning Self-Report Scale (SRL-SRS). *International Journal of Sport and Exercise Psychology*, 10(1), 24-38.

Towilson, C., MacMaster, C., Gonçalves, B., Sampaio, J., Toner, J., MacFarlane, N., ... & Abt, G. (2021). The effect of bio-banding on physical and psychological indicators of talent identification in academy soccer players. *Science and Medicine in Football*, 5(4), 280-292.

Tran, X. (2012). Football scores on the Big Five personality factors across 50 states in the US. *J Sports Med Doping Stud*, 2(117), 2161-0673.

Truong, L. K., Mosewich, A. D., Holt, C. J., Le, C. Y., Miciak, M., & Whittaker, J. L. (2020). Psychological, social and contextual factors across recovery stages following a sport-related knee injury: a scoping review. *British journal of sports medicine*, 54(19), 1149-1156.

Tucker, R., & Collins, M. (2012). What makes champions? A review of the relative contribution of genes and training to sporting success. *British journal of sports medicine*, 46(8), 555-561.

Vaeyens, R., Lenoir, M., Williams, A., & Philippaerts, R. (2008). Talent Identification and Development Programmes in Sport. *Sports Medicine*, 38(9), 703-714.

Vaeyens, R., Malina, R. M., Janssens, M., Van Renterghem, B., Bourgois, J., Vrijens, J., & Philippaerts, R. M. (2006). A multidisciplinary selection model for youth soccer: the Ghent Youth Soccer Project. *British journal of sports medicine*, 40(11), 928-934.

Vaeyens, R., Philippaerts, R. M., & Malina, R. M. (2005). The relative age effect in soccer: A match-related perspective. *Journal of sports sciences*, 23(7), 747-756.

Varni, J. W., Seid, M., & Kurtin, P. S. (2001). PedsQL™ 4.0: Reliability and validity of the Pediatric Quality of Life Inventory™ Version 4.0 Generic Core Scales in healthy and patient populations. *Medical care*, 800-812.

Vasconcellos, D., Parker, P. D., Hilland, T., Cinelli, R., Owen, K. B., Kapsal, N., ... & Lonsdale, C. (2020). Self-determination theory applied to physical education: A systematic review and meta-analysis. *Journal of Educational Psychology*, 112(7), 1444.

Votteler, A., & Höner, O. (2014). The relative age effect in the German Football TID Programme: Biases in motor performance diagnostics and effects on single motor abilities and skills in groups of selected players. *European journal of sport science*, 14(5), 433-442.

Wachsmuth, S., Raabe, J., Readdy, T., Dugandzic, D., & Höner, O. (2022). Evaluating a Multiplier Approach to Coach Education Within the German Football Association's Talent Development Program: An Example of an Intervention Study Targeting Need-Supportive Coaching. *International Sport Coaching Journal*, 1(aop), 1-14.

Waleriańczyk, W., & Stolarski, M. (2021). Personality and sport performance: The role of perfectionism, Big Five traits, and anticipated performance in predicting the results of distance running competitions. *Personality and Individual Differences*, 169, 109993.

Wang, C. J., Biddle, S. J., & Elliot, A. J. (2007). The 2× 2 achievement goal framework in a physical education context. *Psychology of sport and exercise*, 8(2), 147-168.

Wang, C. K. J., Pyun, D. Y., Li, C., & Lee, M. S. (2016). Talent development environment and achievement goal adoption among Korean and Singaporean athletes: Does perceived competence matter?. *International Journal of Sports Science & Coaching*, 11(4), 496-504.

Watson, T. W. (1997). Guidelines for Conducting Interviews. Armstrong lab brooks afb tx human resources directorate.

Weir, P. L., Smith, K. L., Paterson, C., & Horton, S. (2010). Canadian women's ice hockey: Evidence of a relative age effect. *Talent Development & Excellence*, 2(2), 209-217.

Williams, A. M., & Reilly, T. (2000). Talent identification and development in soccer. *Journal of sports sciences*, 18(9), 657-667.

Williams, A. M., Ford, P. R., & Drust, B. (2020). Talent identification and development in soccer since the millennium. *Journal of sports sciences*, 38(11-12), 1199-1210.

Wodniak, K. (2021). Social leverage of sporting mega-events and co-production. The case study of Orlik facilities in Poland after EURO 2012. *International Journal of Sport Policy and Politics*, 1-20.

Wolfenden, L. E., & Holt, N. L. (2005). Talent development in elite junior tennis: Perceptions of players, parents, and coaches. *Journal of applied sport psychology*, 17(2), 108-126.

Wolstencroft, E. (2002). *Talent identification and development: An academic review*. Edinburgh: Sport Scotland.

Worthington, E. (1984). Knowing, organising, observing and coaching. *Towards better coaching*, 239-262.

Wylleman, P., Alfermann, D., & Lavalley, D. (2004). Career transitions in sport: European perspectives. *Psychology of sport and exercise*, 5(1), 7-20.

Yagüe, J. M., de la Rubia, A., Sánchez-Molina, J., Maroto-Izquierdo, S., & Molinero, O. (2018). The relative age effect in the 10 best leagues of male professional football of the Union of European Football Associations (UEFA). *Journal of sports science & medicine*, 17(3), 409.

Yagüe, J. M., Izquierdo, J. M., Muñoz, Á., Sánchez, J., & Redondo, J. C. (2020). The relative effect of age in international football: Europe vs South America. *European Journal of Human Movement*, 44, 34-49.

Yazdifara, H. Zamanb, M. Tsamenyia, M. and Askarany, D. (2008). 'Management Accounting Change in a Subsidiary Organisation', *Critical Perspectives on Accounting*, Vol. 19, No. 3, Pp.404-430.

Zimmerman, B. J., & Cleary, T. J. (2006). Adolescents' development of personal agency: The role of self-efficacy beliefs and self-regulatory skill. *Self-efficacy beliefs of adolescents*, 5, 45-69.