

Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the  
Transitional Process

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## **Abstract**

This thesis extended knowledge of the junior-to-senior transition in the context of British track-and-field. The central purpose of this thesis was to (a) explore the junior-to-senior transition in sport and (b) design, implement, and evaluate an athlete-based intervention designed to support the process, within a UK context.

To help achieve the overall purpose Study 1 provided a systematic review of literature focused on the junior-to-senior transition. Specifically, this Study: (a) provided an overview and critique of methodological and theoretical decisions which underpins current junior-to-senior transition literature; (b) systematically reviewed, evaluated, and analysed literature on the junior-to-senior transition in sport regarding key factors that are perceived to impact the transition; and (c) provided a synthesis of findings regarding the factors that influence the junior-to-senior transition in sport. A total of 27 studies were included in the meta-study. Meta-method, meta-theory, meta-data analysis, and meta-synthesis analyses were conducted on data. Data highlighted that the main method used to research the junior-to-senior transition is cross-sectional individual interviews, with two theories (Stambulova, 2003; Wylleman & Lavallee, 2004) used as the main underpinning theories for data collection. Analysis identified 59 factors that were perceived to impact the junior-to-senior transition. These 59 factors fell into one of 13 themes, which were then categorised into 4 overarching themes: individual factors, external factors, cultural factors, and intervention strategies. A model of junior-to-senior transition, which synthesises current knowledge, was proposed as a way to explain the process. Study 1 also identified gaps in current knowledge, highlights practical implications, and identifies future research directions (e.g., longitudinal designs).

Moving on from Study 1, Study 2 looked to understand the junior-to-senior transition from a specific sporting context. To understand the progression rates of athletes from junior-to-senior level, Study 2 examined the transition within the specific context of British track-

and-field. The purpose of the second study was to explore the performance progression of elite British junior athletes who have competed at the World Junior Championships. Specifically, the study looked to establish if these athletes go on to (a) achieve a personal best/peak performance as a senior athlete, (b) represent Great Britain at major senior championships, and whether (c) World Junior medallists are more likely to transition into the senior ranks than non-medal winners. Data were retrospectively analysed by tracking the Great British World Junior Athletics team (n= 317) from 1998-2012 and their subsequent sporting performances. The results showed that, of the athletes who competed at a World Junior Championships between 1998-2012, 63% failed to go on to improve their personal best as a senior athlete, whilst 67% of athletes failed to go on to represent the senior Great Britain team at a major championship. Additional analyses were carried out to establish if winning a medal at the World Junior Championships increased athletes' chances of achieving success at a senior level. Of the 26 Great Britain World Junior individual medallists, 19 (73%) went on to represent Great Britain at a major senior championship. However, 69% of Great Britain World Junior medallists did not go on to improve their personal best as a senior athlete, peaking before they reached the senior age-group. The results from Study 2 quantify the transition from junior-to-senior in British track-and-field, with many athletes failing to make the required progression needed to succeed at a senior level.

After developing an understanding of the progression rates of athletes negotiating the step up to senior sport evidenced by Study 2, Study 3 looked to explore the factors associated with the transition. This study aimed to add to the junior-to-senior literature by developing knowledge regarding the factors that can influence both a successful and unsuccessful transition outcome from a sport-specific context (e.g., British track-and-field). Participants (n=10) aged between 26 and 37 years took part in the study. Participants were all current or retired British track-and-field athletes who had experienced either a successful or

unsuccessful transition outcome. Semi-structured interviews were employed, transcribed verbatim and thematically analysed (Braun et al., 2019). The results from Study 3 revealed that the process of transition from junior-to-senior sport is unique and involves various factors which have the potential to aid or hinder athletes' progress. Both athletes who experienced a successful or unsuccessful transition were influenced by a range of individual, external, and organisational facilitators and debilitators. The results from the study highlighted similarities between the two groups of athletes - for example, athletes perceived there to be a considerable number of challenges concerning the national governing body and perceived a lack of organisational support. On the contrary, athletes who were successful in the transition discussed having access to a larger support network (e.g., coach, training partners) and psychological facilitators (e.g., determination, confidence, motivation) compared to their counterparts, who perceived various debilitators to their transition experience (e.g., lack of facilities, injuries, the coach, loss of motivation, competition behaviours) and appear to lack the individual (e.g., psychological attributes) and external facilitators (e.g., social support) that can be crucial when making the step up into senior sport.

The results from Study 3 suggest that both successful athletes and those who are unsuccessful in making the transition into senior sport perceive several factors to influence their transition. However, one potential limitation of Study 3 was that it employed retrospective interview techniques, which may, not only be influenced by recall bias but may also not be useful in identifying whether factors associated with transition change over the transition period. To advance the literature on the junior-to-senior transition, Study 4 examined athletes' personal narratives of the junior-to-senior transition, specifically the factors that influence athletes transition and identify any changes that occur during this period. A total of six athletes (4 female, 2 male) were purposefully selected, aged between 18 and 24 years ( $\bar{x}$  = 20.5). Interviews ( $n=3$ ) with each participant took place over 12 months,

with a total of 18 interviews. Interviews took place in June 2017, October/November 2017 and March/April 2018. Interviews were recorded, transcribed, and structural analysis was employed. Athletes identified various factors that they perceived as facilitative and debilitating towards the transition outcome that had also been recognised in previous studies in the thesis. For example, some of the factor's athletes perceived to facilitate their transition included social support, focusing on personal progression, and developing a sport-specific knowledge. Whereas, factors that were perceived to hinder the transition included an increase in pressure to perform, lack of support, and a lack of motivation. The study highlighted several important considerations associated with the junior-to-senior transition in sport. First, the factors perceived to influence the transition vary amongst individuals. For example, a factor that one athlete perceives as particularly challenging (e.g., increase in pressure to perform) may not be identified by another athlete. Individual variation in athletes needs to be considered when negotiating the junior-to-senior transition. Also, Study 4 highlighted the factors associated with the transition are dynamic and are constantly changing throughout the process. The results may help practitioners understand the dynamic process of the junior-to-senior transition, specifically, how athletes' perceptions can evolve and change during the course of the process. Furthermore, the results from this study may lead to the development of interventions to prepare athletes for the transition into senior sport by educating them on the challenges associated with the transition and support them in developing effective coping strategies to manage these changes.

After developing a more comprehensive knowledge of the junior-to-senior transition in British track-and-field from studies 1 to 4 in the thesis, Study 5 looked to identify an approach to facilitate athletes' transition. Specifically, the purpose of Study 5 was to develop, implement and evaluate the effectiveness of the intervention. The intervention spanned a 3-month period and looked to provide athletes with appropriate education to manage sport and

non-sport demands whilst negotiating the transition. The intervention was made up of fourteen workshops (e.g., effective time management, nutrition, mentoring) and personalised one-to-one support was offered to participants. The intervention was conducted with male ( $n=2$ ) and female ( $n=11$ ) British track-and-field athletes aged between 16 and 21 ( $\bar{x}=18.6$ ;  $SD=1.61$ ). Athletes were competing at local ( $n=2$ ), national ( $n=7$ ), and international ( $n=4$ ) level. The effectiveness of the intervention was evaluated using the Transition Monitoring Survey (TMS; Stambulova et al., 2012) and social validation interviews. The results imply that, amongst other factors, athletes felt more motivated to make the transition, better adjusted to compete as a senior athlete, and had developed a number of coping strategies that can facilitate their transition (e.g., seeing progress as long-term) post-intervention. Beyond this, the results showed that the intervention had a positive influence on athletes' perceptions of the transition, their motivation to successfully make the step up into senior sport and had developed skills which could be used in the future (e.g., goal setting). Based on the results from Study 5, there is a need for researchers, practitioners, and governing bodies to implement and evaluate further interventions to support athletes through the junior-to-senior transition.

The current PhD extends knowledge of the junior-to-senior transition in sport. The thesis has made a significant contribution to the literature by providing a review and synthesis of the current research on the junior-to-senior transition in sport and a new model of transition to better explain the various factors involved in the transition (e.g., individual, external, cultural model of the junior-to-senior transition; Study 1). The thesis went on to explore the transition from the specific context of British track-and-field. After identifying the current retention and progression rates of British athletes from elite junior-to-senior level, the need to explore the specific factors influencing the transition was apparent. Factors that were perceived to facilitate and debilitate athletes' transitions into senior athletics were

explored and subsequently informed the design, implementation, and evaluation of an intervention to support athletes approaching the junior-to-senior transition. It is proposed that this knowledge not only has the potential to benefit athletes but practitioners, coaches, sports organisations alike. Sports psychologists, national governing bodies, and other sports organisations should look to support young developing athletes through the delivery of educational interventions aimed at enhancing the necessary skills, attributes, and personal resources to increase the likelihood of experiencing a successful transition and flourishing in the competitive senior environment.

### **Declaration**

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning. This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged within the text and a bibliography is appended.

Signed ..... (candidate)

Date .....

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## **Peer-Reviewed Work Related to the Thesis**

### **Published Peer-Reviewed Papers**

Drew, K., Morris, R., Tod, D., & Eubank, M. (2019). A meta-study of qualitative research on the junior-to-senior transition in sport. *Psychology of Sport and Exercise*, 45.  
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# **Chapter I - Introduction to Thesis**

## 1.1 Introduction

For athletes to reach the highest echelon in sport requires years of dedication, as well as the ability to manage numerous demands while negotiating their way in an increasingly competitive, complex and challenging environment (Anderson & Morris, 2000; Pummell, 2008). Elite sport places considerable pressures and challenges upon athletes throughout the entirety of their career (Wylleman & Lavalley, 2004). Athletes careers are "a succession of stages and transitions that includes an athlete's initiation into and continued participation in organized competitive sport and that is terminated with the athlete's (in)voluntary but definitive discontinuation of participation in organized competitive sport" (Wylleman, Theeboom, & Lavalley, 2004, p. 511). It has been identified as crucial for athletes to effectively manage the transition between these critical moments when attempting to succeed in elite sport (Pearson & Petitpas, 1990).

A transition has been described as "an event or non-event which results in a change in assumptions about oneself and the world, and thus requires a corresponding change in one's behaviour and relationships" (Schlossberg, 1981, p. 5). For example, athletes may experience an expected transition, such as moving up a competitive age-group, or a change of coach. Likewise, unexpected changes, such as an injury or being released from their club/sports team, can also occur. Throughout their career, athletes may experience many career transitions including, injury, deselection or non-selection, and career termination, all of which may necessitate substantial adjustment (Brewer, Van Raalte, & Petitpas, 2000).

The majority of transition research within sport has focused on retirement and athletes transition out of competitive sport (e.g., Cosh, Crabb, & Tully, 2015; Park, Lavalley, & Tod, 2013; Lavalley & Robinson, 2007, Lotysz & Short, 2004, Wylleman, Alfermann, & Lavalley, 2004). Nevertheless, a recent review of research on career transition has demonstrated a shift in focus from career termination to the study of within-career transitions (Stambulova,

Alfermann, Statler, & Côté, 2009; Stambulova, Franck, & Weibull, 2012). Wylleman, Alfermann, and Lavalée (2004) postulated that exploring within-career transitions can create greater knowledge regarding the transitions athletes face, as well as the factors associated with their sporting development.

Recent research has focused specifically on the junior-to-senior transition, which has been frequently cited as the most challenging within-career transition in athletes' careers (Stambulova, 2009; Stambulova et al., 2012). Stambulova (2009) suggests that the junior-to-senior transition can result in two outcomes, with the majority of athletes stalling and moving back to recreational participation or termination, whereas a smaller number of athletes continue on to the senior level. Vanden Auweele, De Martelaer, Rzewnicki, De Knop, and Wylleman (2004) supported this statement with research which highlighted just how challenging the transition into senior sport can be. During a five-year observation, Vanden Auweele et al. (2004) found that only 17% of elite junior national champions went on to successfully transition into the senior ranks. 31% of athletes reported stagnation in their development and went on to become recreational athletes, whereas 28% experienced a lack of consistency in their performances. A further 24% terminated their careers following the transition. These outcomes highlight the challenge associated with attempting to negotiate the transition into senior sport, with more support needed for transitioning athletes to increase their chances of successfully coping with the demands.

Much of the junior-to-senior transition literature has tended to focus on athletes' perceptions of transition process and the associated demands (e.g., Jones, Mahoney, & Gucciardi, 2014; Pummell, 2008). For example, research has suggested that external pressures on athletes from family members, coaching staff and friends can make the transition particularly challenging (Pummell et al., 2008; Morris, Tod, & Eubank, 2017). However, appropriate social support, including emotional, informational, and tangible

support has been found to aid athletic development (Bruner, Munroe-Chandler, & Spink, 2008; Vujic, 2004). As the knowledge base has expanded, there are now a considerable number of studies documenting the various demands and resources associated with the transition (e.g., Bruner et al., 2008; Finn & McKenna, 2010; Franck & Stambulova, 2018a). These factors include personal resources which can facilitate the transition (e.g., work ethic, confidence, coping strategies, identity), and demands which can hinder the transition (e.g., injury, lack of support, financial pressure). The literature highlights the number of factors that can influence athletes' transitional experiences, however, there have been no attempts to synthesise this knowledge.

In addition to the large number of factors associated with the transition, researchers have described the transition into senior sport as a fluid balance of personal and environmental demands and resources (Jones, Mahoney, & Gucciardi, 2014). For example, Morris, Tod, and Eubank (2017) explored professional football players' perceptions and experiences while going through the transition from the youth team into the first team. Athletes making the transition reported changes in their motivation pre and post-transition, expressly, athletes indicated an increase in motivation to become a successful first-team player post-transition. Similar fluctuations in athletes' perceptions of self-confidence and anxiety were indicated, with players' reporting they were less anxious and more confident in their abilities post-transition. These results highlight the dynamic process of transition and indicate that athletes' transitional experiences may be ever-changing throughout the process.

Stambulova et al. (2012) have suggested that researchers should look to address several gaps associated with within-career transition research. First, Stambulova et al. (2012) recommended that researchers examining within-career transitions should employ a holistic lifespan perspective, which involves transitions that not only occur at an athletic level but transitions that occur in other spheres of athletes' lives (e.g., academic, psychosocial;

Wylleman et al., 2004). A second recommendation is that researchers should consider athletes' within-career transitions from a cultural perspective and should explore transitions with specific sociocultural contexts (see Stambulova, Alfermann, Statler, & Côté, 2009). Finally, Stambulova et al. (2012) recommended that researchers apply longitudinal designs to explore the dynamic transition process as it happens which may help to understand the changeable factors athletes experience across the transition period.

Moreover, the increase of literature on the junior-to-senior transition and knowledge regarding the challenge of navigating the transition, has led to a number of researchers emphasising the need to develop psychological interventions to support athletes in transition (e.g., Anderson & Morris, 2000; McKnight et al., 2009; Pummell & Lavalley, 2019; Surujlal, & Van Zyl, 2014). The current thesis will look to address some of these gaps within the literature.

## **1.2 Purpose of the Thesis**

The central purpose of this thesis was to explore to (a) explore the junior-to-senior transition in sport and (b) design, implement, and evaluate an athlete-based intervention designed to support the process, within a UK context.

To add to the existing knowledge on the junior-to-senior transition and achieve the overall purpose of the thesis, the aims of the current research were:

- (a) To provide a review and synthesis of the current research on the junior-to-senior transition in sport (Study 1);
- (b) To quantitatively determine the extent to which elite British junior athletes successfully made the transition into senior sport (Study 2);
- (c) To examine athletes' perceptions and experiences of the junior-to-senior transition in sport, and identify factors that were perceived to facilitate or debilitate the process (Study 2, 3, 4); and

- (d) Based upon findings in the current thesis, design, implement, and evaluate an intervention to support athletes through the junior-to-senior transition (Study 5).

### **1.3 Structure of the Thesis**

#### **1.3.1 Chapter II (Review of Literature)**

Chapter II encompasses a review of the literature exploring career transitions in sport. The chapter outlines theoretical perspectives and approaches to career transition in sport. Followed by an examination of intervention strategies to assist athletes in transition and a brief outline of current research on the junior-to-senior transition. Finally, gaps in the literature and the aims of the current thesis are outlined.

#### **1.3.2 Chapter III (Methodology)**

Chapter III describes the theoretical approach adopted and the rationale behind these methods. The chapter begins by outlining the ontological and epistemological underpinning of this thesis, followed by an overview of the method used including research design.

#### **1.3.3 Chapter IV (Study 1)**

Chapter IV comprises of study 1; A Meta-Study of Qualitative Research on the Junior-to Senior Transition in Sport. Study one of the thesis aimed to identify the current status of knowledge on the junior-to-senior transition in sport by systematically reviewing the transition literature. Specifically, the purpose of the meta-study was to (a) provide an overview and critique of methodological and theoretical decisions which underpin current junior-to-senior transition literature; (b) systematically review, evaluate, and analyse literature on the junior-to-senior transition in sport regarding key factors that are perceived to influence the transition; and (c) provide a synthesis of findings regarding the factors that influence the junior-to-senior transition in sport. The results of this synthesis highlight areas that researchers may look to focus future work on by drawing attention to methods that have been previously underutilised or components of transition that have been understudied.

Similarly, practitioners can use this knowledge to identify potential facilitators and debilitators to the transition for their athletes and identify where intervention and support may be required to facilitate a successful transition outcome and offer support that is more individually tailored to athletes' needs.

Study 1 of the thesis also provides knowledge to help identify common areas to target when providing provision to transitioning athletes, while identifying key resources, which when developed through the delivery of interventions, may facilitate the transition into senior sport.

#### **1.3.4 Chapter V (Study 2)**

The second study aimed to explore the junior-to-senior transition within a sport-specific context. This study explored whether junior success is a prerequisite for achieving senior success by retrospectively tracking British junior track-and-field athletes' performances from the 1998 to 2012 World Junior Championship. This study helps to generate an understanding of the current level of success in supporting elite athlete through the transition from junior-to-senior level within a specific context of British track-and-field, while identifying any areas for concern and whether or not future provision may be needed.

#### **1.3.5 Chapter VI (Study 3)**

The third study of the thesis (chapter VI) provides a cross-sectional analysis of athletes' perceptions of the junior-to-senior transition in track-and-field. Specifically, the objectives were to identify athletes' perceptions of factors and intervention strategies that were perceived to influence their transition outcome, while simultaneously comparing the findings between those athletes who experience a successful transition into senior sport, with those who did not. This study advances knowledge on the junior-to-senior transition by identifying key factors that influence transition outcomes, while outlining any differences between those who experienced successful and unsuccessful transitions.

### **1.3.6 Chapter VII (Study 4)**

Chapter VII outlines Study 4, a longitudinal narrative of athletes' junior-to-senior transition in sport, from the perspective of British track-and-field athletes currently negotiating the transition. Six elite junior athletes at various stages of the junior-to-senior transition were interviewed three times during a 12-month period. The purpose of study 4 was to explore athletes' personal narratives regarding their transition experiences, including factors that influence their transition, as well as any changes in perceptions that occur during various phases of the process.

### **1.3.7 Chapter VIII (Study 5)**

The final study of the thesis (chapter VIII) involved the design, implementation, and evaluation of an intervention to support athletes negotiating the junior-to-senior transition. The purpose of this study was to deliver an intervention informed by knowledge generated from previous studies in the thesis and evaluate its effectiveness. Junior track-and-field athletes (n=13) took part in a 3-month intervention, delivered through a series of workshops. The purpose of the intervention was to educate athletes on relevant knowledge, skills, and support, which may help their transition to senior sport. The effectiveness of the intervention was evaluated through the Transition Monitoring Survey (TMS; Stambulova et al., 2012) and social validation interviews. Results highlight the benefits of interventions for athletes approaching the transition into senior sport, and the need for researchers, governing bodies, and sports organisations to invest in the development of research-informed programmes to assist aspiring athletes to make the move.

### **1.3.8 Chapter IX (Summary, Discussion, and Conclusions)**

Chapter IX concludes the thesis by highlighting and discussing a summary of the overall results, applied implications of the research findings, perceived strengths and

limitations of the thesis, and suggestions for future research in the area of junior-to-senior transition in sport.

### **1.4 Definition of Terms**

**Athletic identity:** The degree to which an individual identifies with the athletic role (Brewer, Van Raalte, & Linder, 1993).

**Coping:** The cognitive and behavioural efforts made to master, tolerate, or reduce external and internal demands and conflicts (Folkman & Lazarus, 1980).

**Junior-to-senior transition:** The junior-to-senior transition usually occurs when athletes progress from junior (e.g., under-20) to senior (e.g., all ages) competitions, although this can vary between sports (Bennie & O'Connor, 2006). In British track-and-field, the transition into the senior age group will begin when athletes first move out of the U20 age group.

**Age-groups in UK track-and-field:**

- (a) U20/Junior: Athletes under the age of 20 and over the age of 16 on 31<sup>st</sup> December in the competition year.
- (b) U23: Athletes under the age of 23 and over the age of 20 on 31<sup>st</sup> December in the competition year.
- (c) Senior: Athletes who are at least 23 on 31<sup>st</sup> December in the calendar year.

**Track-and-Field:** The sport of track-and-field athletics, usually referred to as athletics in the United Kingdom; in this thesis will be referred to as track-and-field.

**Transition:** An event or non-event, which results in changes in oneself and one's life, behaviour, and relationships (Schlossberg, 1981).

**Within-career sport transition:** Transitions athletes face during their athletic careers (Wylleman & Lavallee, 2004).

World Championships: IAAF World Championships in Athletics.

World Junior Championships: An international competition organised by the International Association of Athletics Federations (IAAF) for athletes aged up to 18 or 19 on 31<sup>st</sup> December in the year of the competition.

## **Chapter II – Review of Literature**

## **2.1 Introduction**

This chapter will begin by discussing the different theoretical perspectives on career transitions in sport. Following this, approaches to career transition intervention and intervention strategies will be outlined. Finally, the current literature on the junior-to-senior transition will be examined, followed by a summary and aims of the current thesis.

## **2.2 Theoretical Perspectives on Career Transition in Sport**

In recent years, interest in the identification and development of talented youngsters into senior world-class athletes has been the focus of sporting organisations, practitioners, and researchers alike (e.g., Anshel & Lidor, 2012; Johnston, Wattie, Schorer, & Baker, 2018; Lidor, Côté, & Hackfort, 2009). The objective of this part of the literature review is to enhance understanding of the theoretical perspectives and origins of research shaping present conceptual models of career transitions in sport.

Original conceptualisations of career transition involved the use of a range of psychological and social models of transition, including social gerontological models (e.g., Friedmann & Havighurst, 1954; Havighurst & Albrecht, 1953), thanatological models (e.g., Rosenberg, 1984), and transition models (e.g., Schlossberg, 1981). Much of the early transition literature within sport focused on exploring the transition out of elite sport (e.g., Baillie & Danish, 1992; Pearson & Petitpas, 1990; Taylor & Ogilvie, 1994). Several researchers explored retirement from sport using gerontology models (e.g., Rosenberg, 1981). Gerontology is the scientific study of the ageing process (Atchley, 1991), which explores the interaction between society and ageing and the influence this can have upon retirement from the workforce (Lavalley, 2000). For example, activity theory (Friedmann & Havighurst, 1954) proposes a relationship between social activity and adjustment to retirement from the general workforce. The model proposes that individuals seeking to achieve a successful adjustment to retirement, should maintain social interactions and a level of physical activity

to replace roles lost through retirement (Havighurst & Albrecht, 1953). Although activity theory may explain why some athletes successfully retire from sport by maintaining similar levels of activity, it does not offer a complete account as some individuals may still experience negative adjustment to retirement despite maintaining their involvement in sport (Morris, 2013).

Thanatology is the study of the dying process and the psychological, social, and physical reactions to death (Lavalley, 2000). Thanatological models have been used by some researchers to explain the career transition process, particularly in the case of involuntary retirement from sport (Rosenberg, 1982). For example, Zaichkowsky, King, and McCarthy (2000) explored the forced transition of the Boston University Football team following the termination of the sport programme at the institution. The researchers suggested comparisons between the responses to their forced retirement and Kübler-Ross's (1969) stages of grief and bereavement could be made, with participants experiencing shock, denial, anger and finally acceptance, stages which are present within stages of grief and bereavement (Kübler-Ross, 1969). Nevertheless, researchers have criticised the use of models of thanatology to explain sports career transition, as for some athletic retirement may be an opportunity for social rebirth, rather than a social death (Coakley, 1983).

Both gerontology models and thanatological models have been criticised for their limited perspective when explaining the complexities of the transition process and do not fully explain the athletic and non-athletic factors that influence adaptation to retirement in sport (Pummell, 2008). Additionally, these models view retirement as a singular event rather than a process that occurs over a lifespan (Blinde & Greendorfer, 1985).

To overcome some of the criticism of gerontology and thanatological models, Schlossberg's (1981) human adaptation to transition model highlights many of the factors which may influence adaptation to transition and suggest that the resources (e.g., social

support) and individuals perception of the transition can have an influence on transition outcomes. Specifically, Schlossberg's (1981) model outlines three variables that interact to influence an individuals' adaptation to a transition including: (a) perceptions of the particular transition, (b) characteristics of the pre-transition and post-transition environments, and (c) characteristics of the individual experiencing the transition. According to Schlossberg, perceptions of the transition can include role change, effect, source, timing, onset, and duration. For example, if athletes anticipated transitions, they are more likely to feel prepared for the change, or if it was sudden and unexpected, adaptation might be more challenging.

Schlossberg also described the characteristics of the pre-transition and post-transition environment, which is made up of internal support systems, intimate relationships, family unit, network of friends, institutional support, physical setting, and previous experience with similar transitions. A number of these characteristics are supported in the literature when highlighting factors that can influence athletes' junior-to-senior transition. For instance, social support is an external factor that may have the potential to facilitate athletes' transitions into senior sport (Bennie & O'Connor, 2006). Providing athletes with positive support and encouragement in environments where there is excessive pressure, is conducive to a successful adaptation to the transition (Pummell et al., 2008). Similarly, institutional support from national governing bodies or sporting organisations can also influence transition outcomes (Morris et al., 2016).

Finally, Schlossberg (1981) highlighted that the characteristics of the individual experiencing the transition can also influence adaptation. Individual characteristics include psychosocial competence, sex, age, state of health, race/ethnicity, socio-economic status, and value orientation.

Despite some support in the literature for the use of Schlossberg's (1981) model (e.g., Baillie, 1992), the model has been criticised because it does not describe the specific

components associated with transition (e.g., coach-athlete relationship) and does not offer a multidimensional approach that is required to appropriately study sport career transition (Taylor & Ogilvie, 1998). With previous models failing to adequately explain sporting transitions through the use of non-sport specific social and psychological theories, specific models were developed to explain transitions within sport.

Taylor and Ogilvie (1998) developed a conceptual model of adaptation to retirement among athletes which aimed to provide a comprehensive account of the athletic retirement process in its entirety. The model detailed the factors associated with retirement such as; cause of athletic retirement (e.g., age, deselection, injury), factors related to adaptation to retirement (e.g., self-identity, perceptions of control), and available resources (e.g., coping skills, social support, pre-retirement planning). According to the model, athletes' quality of adaptation to retirement will depend on these components, resulting in either a healthy retirement transition or a retirement crisis which may have several negative consequences (e.g., substance abuse, occupational problems, family/social problems) and require appropriate intervention. Although Taylor and Ogilvie's (1998) model discusses the use of interventions, these strategies are reactive. Researchers have since highlighted the importance of providing athletes with proactive interventions to limit psychological distress (Wylleman, Alfermann, & Lavallee, 2004). This model was one of the first to provide a sport-specific framework regarding athletic career transitions. However, this model focused explicitly on retirement from sport and did not consider other within-career transition in sport (e.g., junior-to-senior transition).

### **2.2.1 Developmental Model**

To overcome this extensive focus on retirement in sport, recent research into athletic career transitions has prompted researchers and applied practitioners to adopt a holistic lifespan perspective (Alfermann & Stambulova, 2007; Stambulova, Alfermann, Statler, &

Côté, 2009). The developmental model (Wylleman & Lavallee, 2004; see Figure 2.1) illustrates the holistic lifespan perspective, and particularly the normative transitions that occur throughout athletes' careers. In doing this, their model not only describes sporting transitions (e.g., junior-to-senior transition) but also describes when transitions outside of sport (e.g., moving from adolescence to adulthood) can occur. The model describes the normative transitions athletes experience across four levels: (a) athletic, (b) psychological, (c) social, and (d) academic/vocational. Wylleman and Lavallee (2004) suggested that the different levels of the model interact and transitions across the different levels can co-occur, which may harm athletic development.

AGE	10	15	20	25	30	35
Athletic Level	Initiation	Development		Mastery		Discontinuation
Psychological Level	Childhood	Adolescence			Adulthood	
Psycho-social Level	Parents Siblings Peers	Peers Coach Parents		Partner Coach		Family (Coach)
Academic Vocational Level	Primary education	Secondary education	Higher education		Vocational training Professional occupation	

*Figure 2.1.* A developmental perspective on transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational levels (Wylleman & Lavallee, 2004).

**2.2.1.1 Athletic level.** The top layer of the model is the athletic level and represents the four normative transitions that athletes experience in their athletic development.

Initiation is the first stage and represents the transition into organised competitive sports, which occurs at roughly 6 to 7 years of age. For the next 5 to 7 years, young athletes take part in organised sports and move into the development stage around 12 or 13 years of age. It is during the development stage that athletes' transition to an intensive level of

training and competition (Wylleman & Lavallee, 2004). Following this, at approximately 18/19 years of age, athletes will transition from the development stage into the mastery stage. The mastery stage represents when athletes are competing at their highest level. The final stage of the athletic level represents the transition from the mastery stage to the discontinuation stage, which typically occurs between 28 and 30 years of age. Wylleman & Lavallee (2004) highlighted that the age ranges provided with their model are an approximation based up the averages across several sports and may vary depending on the specific sport. For example, female gymnasts are expected to discontinue their sport between 15 and 19 years of age (Kerr & Dacyshyn, 2000), whereas peak age for other sports can be much higher, such as triathlon where optimum performance often occurs between 26 and 32 years of age (Villaroel, Mora, & González-Parra, 2011).

**2.2.1.2 Psychological level.** The second layer of the model reflects the three psychological levels that occur at a various stages of development. Conceptual frameworks of individuals' life span development underpin this level of the model (e.g., Erikson, 1950; Havighurst, 1973; Piaget, 1971). The first level is childhood which takes place until 12 years of age. During childhood, athletes become ready for structured sport competition from a motivational perspective (e.g., the extent to which a child is motivated to take part in sport because of their interest in the activity) and cognitive perspective (e.g., the child's understanding of roles, responsibilities, and relationships within their sport). Following childhood, athletes transition into adolescence. Adolescence occurs between the ages of 13 to 18. During adolescence, individuals will be faced with developmental tasks such as; building mature relationships, identifying their role within society, and gaining independence from parents. Moreover, developing self-identity is an especially important developmental task during adolescence which can have both positive and negative consequences for athletes adjustment to transition. (Wylleman & Lavallee, 2004). For example, athletic identity can

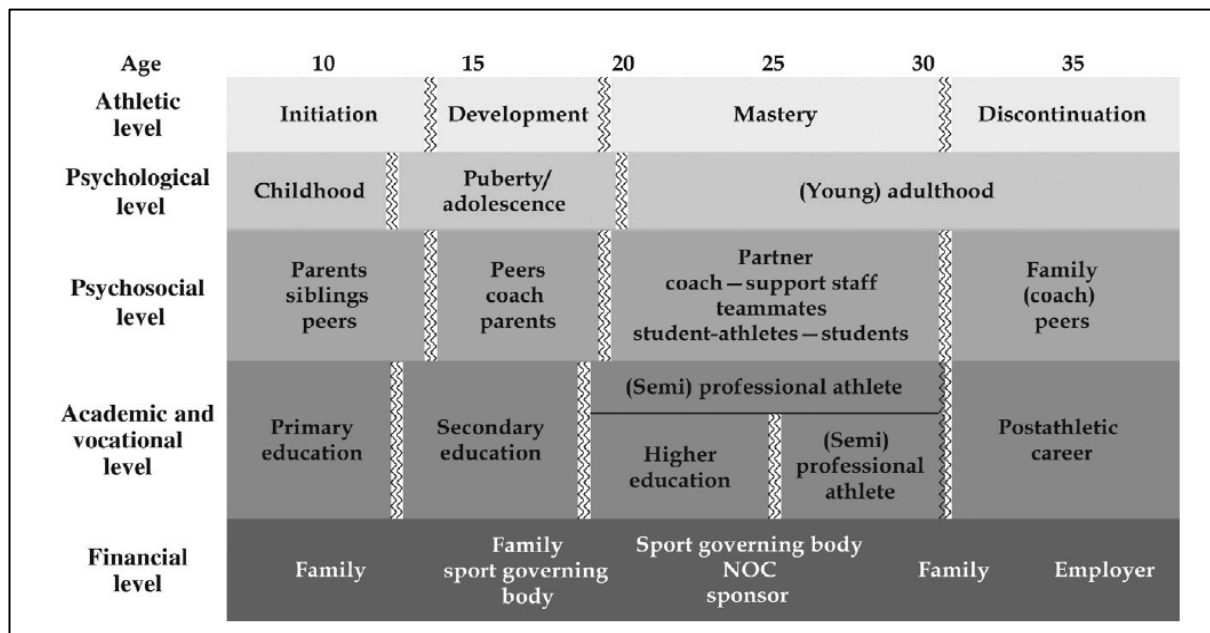
have a positive influence on athletes continued involvement in sport and transition experiences (e.g., athletes who have a strong athletic identity are more likely to make a successful transition into senior sport; Hollings, Mallett, & Hume, 2014). Nevertheless, an exclusive athletic identity can prevent athletes from exploring other career and lifestyle options which can lead to many negative consequences when retiring from sport (Jones et al., 2014; Lavalley & Robinson, 2007; Stambulova & Ivarsson, 2016). The final stage of the model is the transition from adolescence into adulthood which occurs from the age of 19 onwards. Adulthood is associated with more responsibility for the athlete both inside and outside of their sport, whilst continuing to develop a stronger identity and more mature relationships.

**2.2.1.3 Psychosocial level.** The third layer of the model is based upon the conceptual frameworks related to the development of the athletic family (Hellstedt, 1995) and marital relationships (Coppel, 1995), and represents athletes' psychosocial development. Athletes' social networks predominately consists of coaches, parents, and peers. Wylleman and Lavalley (2004) categorised athletes' psychosocial development into four stages, which is determined by the stage of their athletic career. During the initiation stage, until approximately 13, parents are recognised as the most influential source of support for athletes, with siblings and peers also being perceived as a crucial support mechanism. Following this, athletes experience the developmental stage that occurs between approximately 13 to 22 years of age. Athletes relationships with their peers are the most influential, with the coach in second followed by parents. During the mastery stage (between the ages of 22 and 29) athletes' relationships with their partner and coach are identified as the most influential. Finally, when athletes are likely to be negotiating the discontinuation stage their primary source of support was their family, with less importance placed on their coach.

**2.2.1.4 Academic/vocational level.** The final layer of the model reflects the normative educational and vocational transitions. This level of the model was divided into four transitions and represented the transition into primary education at approximately the ages of 6 or 7, secondary school at the ages of 12 or 13, and the transition into higher education (e.g., college and university) at 18 or 19 years of age. The final transition in this level was the transition into vocational training or professional occupation from the age of 22 onwards. Wylleman and Lavallee (2004) indicated that the transition into vocational training or professional occupation might occur at an earlier stage of the model for some athletes (e.g., after secondary school) but represents a typical developmental cycle where athletes continue into higher education.

As highlighted, Wylleman and Lavallee's (2004) model represents a holistic approach to athletic development. The model emphasises the need to consider non-sporting transitions alongside sporting transitions when supporting athletes' development. For example, athletes who are experiencing the transition from junior-to-senior level competitions may find this increase in competition level and intensity of training sessions both physically and mentally challenging. Meanwhile, athletes could also be moving from adolescence into young adulthood, which may coincide with general cognitive, social, psychological, and physical challenges. Furthermore, athletes may be simultaneously transitioning from secondary education into higher education when trying to balance the demands of being elite performers, making the process even more challenging (Pummell, Harwood, & Lavallee, 2008). Wylleman and Lavallee's (2004) lifespan model has been used as a conceptual framework for research into athletes' transitional experiences across a range of sports including equestrian (Alge, 2008; Pummell et al., 2008), ice-hockey (Bruner et al., 2008), and basketball (Čačija, 2007). More recently, further developments of this model have taken place, leading to the formation of the holistic athletic career model (Wylleman, Reints, & De

Knop, 2013). The holistic athletic career model (Figure 2.2) contains the four levels as identified by the previous model, albeit with some adaptations, as well as the addition of a financial level. The additional level highlights the financial support that athletes may get through the various stages of their athletic career. Athletes' families are seen as a significant source of financial support during the early stages of career development for some elite athletes, and possibly again before and during retirement from sport (Wylleman & Rosier, 2016). The addition of the financial layer also highlights the influence of national governing bodies, national Olympic Committees, and sponsors from the development stage through to the mastery stage.



*Figure 2.2.* The holistic athlete career model representing transition and stages faced by athletes at athletic, psychological, psychosocial, academic/vocational, and financial level (Wylleman, Reints, & De Knop, 2013).

### 2.2.2 Athletic Career Transition Model

The athletic career transition model (Stambulova, 2003) is used to explain the process of a single transition. This model has been referenced because it has shown good validity and has been tested in numerous sporting environments (Hollings, 2014; Morris et al., 2017; Franck & Stambulova, 2018a). The model is designed to explain different transitions that

could be applied during athletes' sports careers, such as the junior-to-senior transition.

Stambulova (2003; Figure 2.3) outlines that several demands, resources, barriers, and coping mechanisms interact throughout the transition. Coping with the demands of the transition is dependent on athletes having a dynamic balance between appropriate transition resources and barriers.

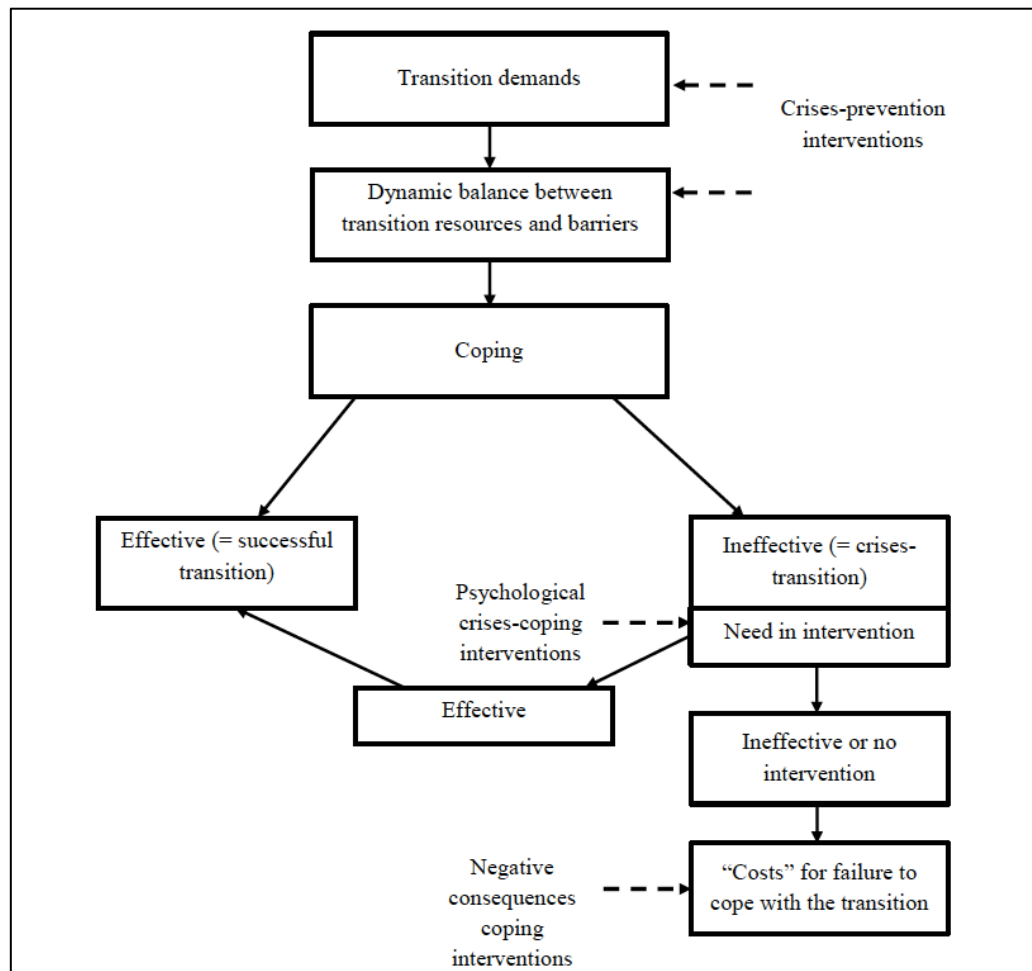


Figure 2.3. Athletic career transition model (Stambulova, 2003).

Stambulova (2003) proposed that transitions come with a set of specific demands. Some examples of the demands associated with the junior-to-senior transition identified in the literature include financial demands (e.g., Bennie & O'Connor; 2006; Finn & McKenna, 2010), increase in skill/technical level (e.g., Morris et al., 2016), and increase in competition qualification standards (Hollings, 2014). The ability for athletes to effectively cope with the demands associated with the transition depends upon the resources they have available.

Resources, which can be both internal and external, can be used to assist athletes to cope with the demands and can have a positive influence on transition outcomes (Stambulova, 2003). Internal resources can include knowledge of the transition process (Alge, 2008; Franck & Stambulova, 2018b), determination (Bennie & O'Connor, 2006; Čačija, 2007), confidence (Mills et al., 2012), and motivation (Jones et al., 2014; Franck, & Stambulova, 2018a; Morris et al., 2017). External resources include factors such as social support (e.g., Bruner et al., 2008; Morris, 2013; Pummell et al., 2008), technical proficiency (Čačija, 2007; Franck & Stambulova, 2018a), and financial support (Morris et al., 2017), all of which can also have a positive influence on the transition process.

Stambulova (2003) described transition barriers as internal or external factors that can interfere with the coping process. Internal barriers can include: a lack of knowledge or skills, poor understanding of the transition process, and complacency (Bruner et al., 2008; Jones et al., 2014; Pummell et al., 2008; Røynesdal, 2015). External barriers may include a lack of financial or social support, organisational stressors, and conflict in the coach-athlete relationship (Bennie & O'Connor, 2006; Morris et al., 2015; Pummell et al., 2008). For example, in one study, athletes who were negotiating the junior-to-senior transition, perceived that there was a lack of organisational support (Pummell et al., 2008). Specifically, athletes perceived there was a lack of empathy from their school regarding the time commitment required to take part in their sport. This barrier led to athletes experiencing time-related pressures which they perceived to harm their social life as well as their school and sport performance.

Stambulova (2003) identifies two primary transition outcomes; successful transitions and crisis transitions. A successful transition indicates that the athlete has coped effectively with the transition demands, whereas a crisis transition indicates that the athlete has experienced difficulty coping with the transition demands through the use of their resources

and requires external support/intervention. Moreover, the model outlines two further outcomes to the crisis transition - which is either a delayed successful transition through the delivery of an effective intervention, or unsuccessful as the result of no or ineffective intervention. The long-term negative consequences of an ineffective intervention or no intervention can include premature dropout, neuroses, eating disorders, burnout, and substance abuse (Stambulova, Franck, & Weibull, 2012).

Stambulova's (2003) model has been used in the career transition research across various sports such as track-and-field (Hollings, 2014), football (Morris et al., 2016; Morris et al., 2017), ice-hockey (Olsson & Pehrson, 2014), and swimming and tennis (Franck & Stambulova, 2018a).

### **2.3 Approaches to Career Transition Intervention**

Since recognising several negative consequences of failing to transition successfully, researchers have emphasised the need to develop intervention programmes to support athletes through career transitions and to help athletes overcome adjustment difficulties experienced during transition (Lavallee, Wylleman, & Sinclair, 1998; Stambulova et al., 2009). According to career transition literature, there are two major perspectives when assisting athletes with career transitions: crisis/negative-consequences coping and preventive/supportive interventions (Stambulova, 2016).

#### **2.3.1 Crisis-coping Intervention**

Crisis-coping interventions are aimed at supporting athletes to evaluate and analyse the crisis, identify ineffective coping and replace it with more effective coping strategies to manage the situation (Stambulova et al., 2009; Stambulova & Wylleman, 2014). A crisis-coping intervention may be needed when athletes have low resources and ineffective coping strategies, and as a consequence are unable to cope with the associated demands of the transition independently and require psychological assistance (Stambulova, 2011;

Stambulova, 2017). Crisis-coping intervention can involve many different strategies including counselling (Stambulova, 2011), mentoring (Lavallee, Nesti, Borkoles, Cockerill, & Edge, 2000), and account making (Grove, Lavallee, Gordon, & Harvey, 1998). To recognise when an athlete is in a crisis-transition, Stambulova (2003) suggested there are four categories of crisis symptoms: a decrease in self-esteem, emotional discomfort, increase in sensitivity to failures and the number of psychological barriers, and disorientation in decision making and behaviours. Negative-consequences coping involves an intervention aimed to relieve the distressing symptoms experienced during the transition. These interventions may also involve the treatment of clinical issues that athletes may experience which can include eating disorders, drug and alcohol abuse, depression, anxiety, and suicidal thoughts (Douglas & Carless, 2009; Petrie & Sherman, 2000; Wippert & Wippert, 2008).

### **2.3.2 Preventive Intervention**

Preventive or proactive interventions involve supporting athletes in advance to plan and prepare for forthcoming normative and non-normative transitions (Alfermann & Stambulova, 2007; Stambulova et al., 2009). The avoidance of crisis-transitions has been one of the main focuses of intervention programmes, specifically programmes aimed at supporting athletes through career termination and into occupational work (Lavallee & Anderson, 2000; Lavallee, Kremer, Moran, & Williams, 2003; Petitpas et al., 1996). According to Alfermann and Stambulova (2007), preventive interventions can include ‘helping athletes to anticipate their normative and non-normative athletic and nonathletic transitions and their possible demands, educating athletes about transition process, analysing athletes’ actual coping resources, anticipating potential barriers in the transition, planning ways to cope, and developing new resources-both internal and external-for coping with forthcoming demands’ (p. 726).

There are several preventive approaches in career transition interventions, including career-planning, lifestyle management, life development, identity development, and cultural adaptation interventions (Stambulova, 2016).

**2.3.2.1 Life Development Intervention.** The life development approach is an education-based intervention that has applicability for both athletic and non-athletic domains (Danish, Petitpas, & Hale, 1993). Life development interventions involve the teaching of physical and mental skills (Alfermann & Stambulova, 2007). The skills that are required to excel in a sporting capacity are not exclusively sport-related (Danish et al., 1993). Life skills have value both inside and outside of the sporting environment and can help athletes to manage critical life situations and negotiate life transitions. Examples of life skills include: to perform under pressure, to be patient, to set and attain goals, to make informed decisions, to handle both success and failure, and to accept criticism and feedback (Danish et al., 1993).

According to Wylleman et al. (2004), despite research highlighting the considerable psychological difficulties athletes experience upon their career termination, there is a lack of psychological interventions for retired athletes. This lack of intervention led to Wylleman et al. (2004) delivering a life development intervention to retired professional football players to assess the influence this had on athletes' adjustment to career transition. The intervention was made up of three components: (1) an initial assessment of life events, (2) helping individuals to transfer skills from one domain to another, and (3) teaching skills to help cope with future events. Pre-intervention, both intervention and control groups indicated considerable adjustment difficulties and perceived they were moderately resourceful in coping with the transition. The results of the study found that, through supportive and counselling strategies, a life development intervention can significantly improve elite athletes' adjustment to career termination, with the intervention group showing a significant increase in coping skills compared to the control group.

**2.3.2.2 Career assistance programmes.** As with life development interventions, career assistance programmes advocate a holistic lifespan perspective and are based upon ‘a whole person’ approach (Alfermann & Stambulova, 2007).

Career assistance programmes combine preventive interventions with crisis coping interventions through several delivery methods including workshops, seminars, individual counselling, group support, and educational modules. Due to the focus on the holistic development of the athlete, career assistance programmes support athletes to achieve a balance between their sporting and non-sporting lives, as well as developing transferable competencies (e.g., goal setting, time management, organisational skills) that can assist athletes through transition inside and outside of sport. Career assistance programmes can involve mentoring, account-making, and educational interventions (Stambulova, et al., 2009).

**2.3.2.2.1 Mentoring.** Research has shown mentoring can be a useful intervention strategy for assisting athletes through career transitions (Danish et al., 1993; Lavalley, Nesti, Borkoles, Cockerill, & Edge, 2000). Mentoring involves a close relationship in which a mentor counsels, guides, and supports a protégé (Hardy, 1994; Kram, 1992).

Through the use of mentors, modelling has been one of the most powerful tools for conveying attitudes, values, and behaviours (Vescio, Wilde, & Crosswhite, 2005). As highlighted in social learning theory, individuals learn through the observation of others’ behaviours and the consequence of such behaviour (Bandura, 1986). Observational learning can influence individuals’ behaviour acquisition, moral judgments, inhibitions, disinhibition, facilitation, and creativity (Gibson, 2004). Observational learning through modelling can be relevant in several learning situations - with regards to career transition, athletes may attempt to model the behaviours or attributes of other more experienced athletes. For example, athletes may observe and interact with a senior athlete going through retirement, which can increase their awareness of useful coping strategies that might assist in the transition process

when they also retire. This principle has been applied to a number of different domains such as coaching (Bloom, 2013; Erickson, Bruner, MacDonald, & Côté, 2008), leadership development (Sosik & Lee, 2002), parenting (Hulsebosch & Myers, 2002), and teaching (Perry, Phillips, & Hutchinson, 2004). In order for new employees to become socialised within their new working environment, Disney Company requires their new employees to work alongside an experienced member of staff; this facilitates social learning and allows new employees with an opportunity to learn how to fit in with the established organisational norms (Milkovich & Boudreau, 1997).

Within a sporting context, mentoring has been identified as a method to assist athletes through within career transitions and career termination (Perna, Zaichkowsky & Bocknek 1996). Retired athletes can mentor and assist those currently going through the retirement process by helping them plan for their post-athletic careers, as well as offer guidance and counsel (Anderson & Morris, 2000; Sinclair & Orlick, 1993; Ungerleider, 1997). In addition to the benefits for the mentee, researchers have noted several benefits for the mentor. For example, ex-athletes who have experienced career termination can often feel isolated from their sport and having an opportunity to mentor others can increase their self-worth and continue to make them feel a part of the sporting environment (Sinclair & Orlick, 1993).

In addition to assisting throughout the retirement process, mentoring has also been identified as a useful strategy to help guide athletes through other within-career transitions (Lavallee et al., 2010). With regards to the junior-to-senior transition, researchers have recommended that athletes are allowed to observe and interact with senior athletes (e.g., Morris, Tod, & Oliver, 2015; Stambulova et al., 2017). According to Morris et al. (2016) athletes who engage in a mentorship programme can develop their knowledge of the transition process, including expected behaviours, skills and knowledge required to be successful in senior sport. Exposure to a senior athlete mentor can facilitate a successful

transition by increasing an athletes readiness to transition, developing their characteristics to cope with the demands of the transition, as well as enhancing athletes' comprehension of the transition process (Bruner et al., 2008). Stambulova, Pehrson and Olsson (2017) explored the junior-to-senior transition in the context of Swedish ice hockey and found that role models were particularly crucial during the orientation phases of the transition (the first year in a senior team), with young athletes looking to senior players for support and guidance. Stambulova et al. (2017) concluded that sports clubs should look to develop better links between their junior and senior players through a mentorship programme to prepare junior athletes for the transition into senior sport.

Pummell and Lavalley (2019) delivered one of the first research-informed interventions specifically designed to prepare athletes for the junior-to-senior transition in a UK tennis academy. Pummell and Lavalley focused on developing athletes' resources, knowledge, and readiness to transition through the use of role models. Role models provided informational support via video, discussing the demands of, and coping strategies for the junior-to-senior transition. The results of the intervention indicated that athletes valued the intervention and demonstrated an increase in knowledge, coping, confidence, transition-related skills, and readiness to cope with the transition. Junior athletes that took part in the programme highlighted the positive influence of having the opportunity to learn from an experienced senior athlete:

It wasn't just like saying, 'oh well, this person did that', it's rather they're actually telling you that they did it, so it's like you getting it first-hand ....They were talking like in real life, so you saw the people saying it themselves, so you're probably more inclined to believe it because they're saying it.

Pummell and Lavalley (2019) concluded that sport organisations should create supportive environments that facilitate meaningful relationships between junior and senior

athletes. Within this type of environment, junior athletes should be able to model senior athletes and learn appropriate professional behaviours and increase their awareness of the demands associated with the transition to senior sport.

**2.3.2.2.2 Account-making.** Account making, or narrative therapy, is the ‘act of explaining, describing, and emotionally reacting to problematic or influential life events, with the resultant narratives being story-like constructs developed for situations in which a relatively in-depth understanding is required or desired’ (Lavalley et al., 2002, p.114).

Harvey (1996) suggested that the recovery from a stressful situation such as retirement, involves constructing a story about the stressful situation with a confidant (e.g., what has happened? Why has it happened? How do you feel about the event? What impact might this have on your future?). As individuals’ gain perspective regarding their situation, they can then elaborate and refine their accounts. Confiding their story to a confidant provides emotional release and cognitive clarification (Lavalley, Gordon, & Grove, 1997; Lavalley et al., 2002), which can be facilitative when managing transition challenges. If confidants’ responses are helpful, empathic, and demonstrate an understanding, then athletes are more likely to feel encouraged and deal with the transitional demands rationally and constructively (Grove et al., 1998). Nevertheless, if the confidants demonstrate unhelpful behaviours (e.g., being judgmental, not offering feedback), then the individual is less likely to accept the situation and may continue to experience psychological distress and negative transition experiences (Harvey, Chwalisz, Garwood, & Orbuch, 1991). Regardless of whether individuals’ accounts are in written or verbal form, it is a crucial step in dealing with the cognitive-emotional-behavioural aspects of a career transition (Grove et al., 1998; Harvey, 1996).

Despite account making being one of the most effective interventions in social psychology (Lavalley et al., 2002), there is a lack of research which has appraised the process

of account making with regards to within career transitions in sport (e.g., junior-to-senior transition) and the influence this can have on transition outcomes.

**2.3.2.2.3 Educational Interventions.** Educational programmes can be used to guide and educate young athletes about the forthcoming transition and support them to proactively learn about the challenges associated with the process (Wylleman et al., 2016). Educational programs have been identified as an effective coping strategy that could facilitate the junior-to-senior transition (Hollings, 2014).

Danish et al. (1992) suggested that it is possible to teach psychological skills and techniques through the delivery of educational programmes, which have the potential to facilitate a successful transition. Examples of these skills and techniques include time-management (e.g., Alge, 2008), motivation (e.g., Jones et al., 2014), setting and attaining goals (e.g., Hollings et al., 2014), self-evaluation (e.g., Mills et al., 2012), and positive self-talk (e.g., Čačija, 2007).

As previously discussed, Pummell and Lavalley's (2019) study involved the delivery of an intervention to young athletes approaching the junior-to-senior transition. The intervention looked to prepare athletes for the transition through the teaching of relevant skills and knowledge delivered by senior role models in their sport. The intervention also involved educating young athletes in several areas related to their transition, including mental skills, scheduling tournaments, developing independence and responsibility, and performance and lifestyle adjustments. As a consequence, athletes felt more confident, prepared, and knowledgeable about the transition process.

In addition to educating athletes on the challenges associated with career transition, research has also highlighted the need for coaches, parents, and other key stakeholders to be better informed about the transition process (Bennie & O'Connor, 2004; Hollings, 2014). For example, Morris, Tod, and Oliver (2015) conducted an analysis of the organisational

structure of two professional football clubs, specifically looking at their approach in supporting transitioning players. Organisation A demonstrated a better understanding of the transition process, took a proactive approach to support their players and as a result had better transition outcome statistics in comparison to organisation B. Organisation A not only supported their players but also educated parents on the transition, highlighting any potential challenges they might face during the process. Players from organisation A, indicated they felt more relaxed about the transition knowing that their parents were well informed. Morris et al. (2015) concluded that a proactive intervention which focuses on educating athletes, parents and coaches on the demands, barriers, and resources associated with the junior-to-senior transition might have a positive influence on, not only the players' development but the club's successes as well.

## **2.4 Research Findings on the Junior-to-Senior Transition in Sport**

The following section provides only a brief overview of some of the research findings on the junior-to-senior transition. Chapter four of the thesis presents a meta-study of the junior-to-senior transition literature and, therefore, will offer a thorough synthesis regarding the status of the current research.

The junior-to-senior transition usually occurs when athletes progress from junior (under-20) to senior (all ages) competitions. Research has frequently cited the junior-to-senior transition as the most challenging within-career transition in athletes' careers (Stambulova, 2009). The transition can be particularly demanding as it can challenge young athletes across both athletic and non-athletic domains (Morris, 2013). For example, when moving from junior- to-senior competition, athletes may experience increased competition levels and intensity of practices which may be both physically and mentally demanding. Concurrently, athletes may also be in the process of moving from adolescence into young adulthood and this may result in general cognitive, social, psychological, and physical

developmental demands (Wylleman & Lavallee, 2004). Athletes may simultaneously experience academic transitions when moving from secondary to higher education (Pummell, Harwood, & Lavallee, 2008). Each of these transitions can be demanding in their own right (Morris, 2013). When concurrent transitions occur, the demands can be exponentially increased (Morris, 2013). Additionally, the junior-to-senior transition can be made more challenging by that fact that the transition may span across several years, with athletes in a continual period of uncertainty and challenge (Stambulova, 2009).

#### **2.4.1 Facilitative Factors of the Junior-to-Senior Transition**

Internal factors that have been described in the literature as aiding the transition process include work-ethic (Mills et al., 2012), confidence (Jones et al., 2014), intrinsic motivation (Pummell et al., 2008), mental strength/resilience (Olsson, & Pehrson, 2014), and sport-specific knowledge (Morris et al., 2016). Čačija (2007) conducted a study to explore nine basketball players perceptions of factors that they perceived to influence their transition from junior-to-senior sport. Čačija identified a number of individual strengths within sport (e.g., technical skills, willpower, focus, persistence, confidence) and outside of sport (e.g., ability to adapt to specific situations, time-management and developing new acquaintances).

In addition to several internal factors discussed in the literature, research has also highlighted external factors that can have a positive influence on athletes' junior-to-senior transition. External factors that can facilitate the transition include technical proficiency (Franck & Stambulova, 2018a), financial support (Pummell et al., 2008), and earning game time (Bruner et al., 2008). Social support is one of the most salient external factors that can aid athletes' transition into senior sport (e.g., Bennie & O'Connor, 2004; Pummell et al., 2008; Vujic, 2004). Sources of social support can include parents, siblings, coaches, teammates, training partners, and sport science staff, amongst others. Transitioning athletes also require several different types of support, such as emotional, informational, tangible,

esteemed and financial support (Morris et al., 2016; Pummell et al., 2008; Vujic, 2004). For example, coaches are often required to provide athletes with informational and esteem support, parents provide emotional, esteem, and tangible support, and sports science staff often provide technical, informational and emotional support, although these roles are not exclusive (Morris et al., 2016). Research suggests that if athletes have appropriate support mechanisms in place, this may mean that can better cope with the challenges associated with the transition and experience a more successful transition into senior sport (Pummell et al., 2008; Morris, 2013; Vujic, 2004).

#### **2.4.2 Debilitative Factors of the Junior-to-Senior Transition**

Research on the junior-to-senior transition has also highlighted several factors that have the potential to hinder athletes' progression into senior sport. Debilitative factors to the junior-to-senior transition include inadequate social support (Bruner et al., 2008), time pressures (Čačija, 2008), increased pressure to perform (Olsson, & Pehrson, 2014), setbacks/injuries (Hollings, 2014c), financial demands (Pummell et al., 2008), organisational stressors (Morris et al., 2016), and a lack of motivation (Franck, & Stambulova, 2018b).

In addition, researchers (e.g., Bennie, & O'Connor, 2004; Čačija, 2007; Franck, & Stambulova, 2018b; Hollings 2014a) have regularly cited a substantial increase in standards between junior and senior competition as a factor that athletes perceived to hinder their transition into senior sport. Athletes perceived the increase in competition and performance standards at a senior level was too high which resulted in a decrease in confidence and a lack of belief in their ability to transition successfully (Bennie & O'Connor, 2006). Athletes attempting to make the transition from junior-to-senior level will experience more mature and experienced teammates and competitors, and an increase in the intensity of training and standard of competition (Bruner et al., 2008; Lorenzo et al., 2009). Elite junior athletes may also go from being one of the best juniors to achieving lower level accomplishment at a

senior standard which can cause a decrease in confidence and athletic identity (Brewer, Van Raalte, & Petitpas, 2000; Wylleman, Rosier, De Brandt, & De Knop, 2016). Furthermore, the increase in time and effort required from athletes to achieve a high level of performance and progression at a senior level may also influence their development in other spheres of their lives (e.g., education, employment, social relationships). These sacrifices have the potential to reduce athletes' feelings of enjoyment and motivation towards their sport (Stambulova et al., 2012).

Another factor identified in the literature as potentially debilitating athletes' progression from junior-to-senior level was inadequate social support. Athletes who perceive that they do not have access to the support they require may experience an increase in stress and a loss of confidence which can subsequently influence their transition experience (Bruner et al., 2008; Morris, 2013). Athletes who have a lack of friends and feel isolated may experience negative consequences on their health, wellbeing, and performance because they do not have anyone to confide in when they are experiencing transition-related challenges (Morris, 2013).

To summarise, the initial research conducted on the junior-to-senior transition presents valuable insight into the process, specifically regarding the number of factors that have the potential to hinder or assist athletes as they move to senior competition.

## **2.5 Summary and Aims of the Thesis**

This review of the literature discussed theoretical models of career transition (e.g., Wylleman & Lavallee, 2004) whilst highlighting some of the current junior-to-senior literature. Despite research on career transition having an initial focus on retirement from sport, the past two decades have seen a shift in focus to within-career transition, especially to the junior-to-senior transition (Stambulova et al., 2009). Research (e.g., Bruner et al., 2008; Franck & Stambulova, 2018b; Morris et al., 2016) has primarily focused on identifying the

factors influencing athletes' transition, such as social support, psychological characteristics (e.g., confidence, motivation), and stressors (e.g., increase in pressure to perform, difficulties managing time).

Another shift in focus sees the transition research now considering the role of contextual factors in career development and the impact of national and local contexts in which the transition occurs (Stambulova et al., 2009). Therefore, the current thesis examines the transition within a sport-specific context (British track-and-field) to identify any cultural or organisational factors that may influence athletes' junior-to-senior transition outcomes.

Following this, the review also discussed approaches to transition intervention and offered a critique of strategies that could facilitate the junior-to-senior transition in sport (e.g., mentoring). Nevertheless, empirical evaluation of interventions has been lacking, especially in terms of the efficacy in supporting athletes in transition. Therefore, the current thesis will look to address the gap in the literature by designing, implementing, and evaluating a research-informed intervention to assist athletes through the junior-to-senior transition.

The purpose of this thesis is to extend knowledge on the junior-to-senior transition in sport, by examining process in a sport-specific context (track-and-field) and identify the factors that are perceived to assist or hinder athletes' progression. This new knowledge will lead to the development, implementation and evaluation of an intervention programme to support athletes through the transition. The thesis will address this purpose by:

- (a) Providing a review and synthesis of the current research on the junior-to-senior transition in sport (Study 1);
- (b) Quantitatively determining the extent to which elite British junior athletes successfully make the transition into senior sport (Study 2);

- (c) Examining athletes' perceptions and experiences of the junior-to-senior transition and identify factors that are perceived to facilitate or debilitate the transition outcome (Study 2, 3, 4); and
- (d) Designing, implement and evaluate an intervention to support athletes through the junior-to-senior transition (Study 5).

## **Chapter III – Methodology**

### **3.1 Methodology**

The following chapter outlines the philosophical approach, the methods adopted within the current thesis, and the rationale behind employing these. This chapter begins by outlining the ontological and epistemological underpinning of this thesis, followed by an overview of the general methods used. To provide further context, in the respective chapters, a more specific description of the methods used for each study can be found (see chapters 4, 5, 6, 7, and 8).

### **3.2 Ontological and Epistemological Underpinning**

There are four major components of a research paradigm; epistemology, ontology, methodology and method (Rehman & Alharthi, 2016). Epistemology refers to theories of knowledge, the nature and source of legitimate knowledge, and the ability of participants to possess knowledge (Giacobbi, Poczwardowski & Hager, 2005). Epistemology is a philosophical belief system about who can be a knower and addresses the relationships between the researcher and the participants (Hesse-Biber & Leavy, 2004). Whereas, ontology refers to the study of the nature of reality or being, and whether an objective reality exists independent of the researcher (Creswell, 2003; Giacobbi et al., 2005). Researchers conscious, unconscious beliefs, and assumptions will often serve as the basis for their ontological stance (Hesse-Biber, 2010). Finally, methodology refers to the theoretical stance that underpins the research approach, and method relates to the tools used to collect and analyse data.

There are a number of theoretical paradigms such as: positivism, constructivism, critical realism, interpretivism, deconstructivism, all of which come with their own characterisations and assumptions (Mackenzie & Knipe, 2006). For example, positivism assumes that reality exists independently of humans and believe there are laws governing social phenomena (Rehman & Alharthi, 2016). A positivist views reality as context free and believes that different researchers will draw the same conclusions when studying a specific

topic. Positivists look to collect objective, empirical data to study a phenomena that exists independently of them. Positivists often rely on experimentation and provide hypotheses regarding a causal relationship between phenomena (Rehman & Alharthi, 2016). On the other hand, interpretivism rejects the notion that a single reality exists independent of our senses and believes something such as psychology cannot be measured in an objective way (Keegan, 2016). Instead, interpretivists believe reality is social constructed, and will look to understand a particular context and individual experiences and interpretations about the research area (Thanh & Thanh, 2015; Willis, 2007).

A pragmatic research philosophy was adopted throughout this programme of research. The pragmatic approach originates from the work of William James (1842-1910), John Dewey (1859-1952), Charles Sanders Peirce (1839-1914) and Herbert Mead (1863-1931; Parvaiz, Mufti, Wahab, 2016), and is not committed to any one system of philosophy or reality (Mackenzie & Knipe, 2006). The following paragraphs outline the underpinning features of the pragmatic approach in terms of epistemology, ontology, methodology and method and how they relate to the current thesis.

Within the pragmatic paradigm, there is a focus on practical solutions to applied research questions which will subsequently drive positive change (Peirce, 1984; Tashakkori & Teddlie, 1998). Pragmatism focuses on the practical consequences of individual thoughts and actions (Korte & Mercurio, 2017) and is concerned with making tangible improvements in the everyday lives of individuals (Dewey, 1938; Talisse & Aikin, 2008). This focus on tangible and real solutions is the main justification for this philosophical stance within the current programme of research. For example, the current thesis focuses on developing new knowledge on the junior-to-senior transition and using this to inform practical solutions (e.g., interventions) to assist those going through the process. This data can then be used to

potentially drive positive change (e.g., better transition outcomes, development of transition programmes).

Researchers' ideas, beliefs, attitudes, and values are also likely to have an influence on their epistemological stance (Laughlin, 1995). My philosophical viewpoint lies within the pragmatic paradigm because I assume each individual has their own reality and interpretation of the world. As with the pragmatic approach, I believe that there is a "real-world", but all individuals have their own unique interpretations of that world (Morgan, 2007). In relation to the current thesis, the purpose is to understand athletes individual truths associated with their unique experiences of the junior-to-senior transition. For instance, why might one athlete experience a successful transition, but another athlete of a similar ability may fail to make the required progression?

As mentioned, ontology is the nature of reality (Creswell, 2003). The pragmatic approach assumes that each individual has their own reality and the purpose of the research is to understand participants 'true' reality. This is in contrast to some other paradigms which search for an objective truth (e.g., certaintism). In this thesis, it was first important to know the number of elite junior athletes who are successful in making the transition into senior sport. It was then necessary to understand the reasons behind the figures and understand the "why". Therefore, following this, interviews were arranged with athletes to explore their perceptions of the transition and reasons for successfully making the transition or otherwise. According to Tashakkori and Teddlie (1998), a pragmatist is free to "study what interests you and is of value to you, study it in the different ways that you deem appropriate and utilise the results in ways that can bring about positive consequences with your value" (p.30). In this thesis, the quantitative study (see chapter 5) was conducted prior to any athlete interviews, this allowed the results from the quantitative study to inform inquiry in the subsequent studies.

The above statements outline the ontological and epistemological assumptions that underpin the current thesis. The pragmatic paradigm places the focus on the research question and will utilise all approaches to develop a greater understanding of the research problem (Creswell, 2003). The review of the transition literature in Chapter 2 highlights that there are a large number of factors that can influence the junior-to-senior transition in sport, as well as a number of different individuals involved in the process (e.g., coaches, athletes, parents, teammates). The factors that athletes experience may be unique to each individual and therefore it necessary to understand athletes specific context and the impact this has on the transition. Therefore, the pragmatic approach was deemed appropriate to explore athletes' unique realities and perceptions of the transition. After the research questions were determined, based upon my own philosophy and values, the most appropriate data collection and analysis methods were chosen based upon those which are most likely to provide insights into the research area.

### **3.3 Mixed Methods Rationale**

To address the primary purpose of the thesis, and to examine the junior-to-senior transition in sport, a mixed-methods approach was deemed appropriate. A mixed-method approach is a method of research that uses components of both quantitative and qualitative approaches. The mixed-method approach does not seek to replace quantitative and qualitative methods, but rather to maximise the strengths from both methods and offset the weaknesses (Johnson & Onwuegbuzie, 2004). According to Creswell (2014), mixed methods research is “an approach to research in the social, behavioural, and health sciences in which the investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems” (p. 2). Using exclusively quantitative or qualitative methods in this thesis would not have provided an all-encompassing account of

the research problem. In this thesis, the quantitative analysis provided an understanding of how many British junior athletes can successfully transition to an elite senior. Once the extent of the problem has been established using quantitative methods, it was necessary to explore athlete perceptions of the transition process using qualitative methods.

Specifically, the first study was a meta-study on the junior-to-senior transition, designed to identify the current level of knowledge (e.g., factors that can influence the transition), gaps in the literature, as well as informing subsequent studies in the thesis. The second study quantitatively identified the exact number of British athletes who were able to make a successful transition from elite junior to elite senior status and provided an empirical basis for further exploration in future studies in the thesis. In order to understand the ‘why’ behind the problem (i.e., why so few British junior track-and-field athletes make the transition successfully) a qualitative method of data collection and analysis was employed in the subsequent two studies (studies 3 and 4). The interview method was used to understand and further explore the reasons behind the quantitative findings and gain a deeper understanding of each athletes reality and perceptions of their transition journey. The pragmatic paradigm has been established as one of the underlying philosophical frameworks for mixed methods research and provides a practical method of enquiry that allows for methodological mixing that can help researchers find answers to their research questions (Johnson & Onwuegbuzie, 2004).

### **3.4 Research Design**

A mixed-method sequential exploratory design was deemed the most appropriate research design to meet the requirements of the thesis. The aim of using a sequential exploratory design was to use quantitative data to generate empirical findings and then use qualitative methods to expand upon and enrich these initial findings (Creswell & Plano Clarke, 2007). Using a mixed-methods approach requires more than merely conducting

quantitative and qualitative research independently; the study's results must also merge in some way. The current thesis looks to provide an in-depth understanding on the junior-to-senior transition and draw on the conclusions from both quantitative and qualitative methods by comparing, contrasting, building on, or embedding one type of conclusion with the other (Cresswell & Tashakkori, 2007). In the initial stages of this thesis, quantitative data were collected and analysed to understand and develop an overall understanding of the current research problem. A qualitative phase was then used to inform the findings from the quantitative phase. For example, some athletes were asked to reflect on their experiences of competing at the World Junior Championships, and in some instances, where relevant, were asked their perceptions of why they were unable to transition from elite junior level to elite senior successfully.

Throughout the current thesis, several methods were used to obtain a detailed understanding of the subject area. These methods included:

1. A meta-study procedure to identify the current status of knowledge of the junior-to-senior transition literature. The review provides a critique of the methodological and theoretical decisions that underpin current junior-to-senior literature, identifies the key factors that are perceived to influence the transition and provides a synthesis of findings regarding the factors that influence the quality of the transition from junior-to-senior sport (chapter 4).
2. The use of official secondary performance web-based databases (IAAF and ThePowerof10). These databases were used to obtain athlete data for British athletes who competed at a World Junior Championships. The data collected enabled the researcher to perform a statistical analysis to identify the success rates of elite junior athletes, and their ability to progress to elite senior level (chapter 5).

3. Semi-structured interviews were used to identify participants perceptions of factors that facilitated the junior-to-senior transition as well as factors that hindered the transition. A single semi-structured interview was carried out with five athletes who had successfully transitioned from junior-to-senior status, and five athletes who were not able to successfully transition from an elite junior level (chapter 6). Semi-structured social validation interviews were also used to evaluate the effectiveness of the intervention delivered. Athletes, parents and coaches were asked to divulge their thoughts and feelings towards the intervention, as well as possible areas for improvement (chapter 8).
4. Longitudinal interviews were used to understand the junior-to-senior transition from the perspective of athletes. Six athletes who were currently negotiating the transition took part in three interviews, four months apart to gain their personal narratives of the transition over a 12-month duration (chapter 7).
5. A questionnaire (The Transition Monitoring Survey; Stambulova et al., 2012) was used to evaluate the effectiveness of the intervention delivered in the final study of the thesis. Participants who took part in the intervention were asked to complete the questionnaire pre and post-intervention to identify any changes in athletes readiness to transition on completion of the intervention (chapter 8).

## **Chapter IV - Study One**

### **A Meta-Study of Qualitative Research on the Junior-to-Senior Transition in Sport**

## 4.1 Introduction

As highlighted in the literature review, there has been a notable increase in the number of studies conducted on the junior-to-senior transition, which has frequently been cited as the most challenging within-career transition in athletes' careers (Stambulova, 2009). Sport-specific studies on the junior-to-senior transition have included studies in football (e.g., Finn & McKenna, 2010; Morris, 2013), ice hockey (e.g., Bruner et al., 2008), equestrian (e.g., Alge, 2008; Pummell et al., 2008), track and field (e.g., Bennie & O'Connor, 2004; Hollings, Mallett, & Hume, 2014a), basketball (e.g., Čačija, 2007), and rugby (e.g., Jones, Mahoney, & Gucciardi, 2014). Studies have taken place in several countries across the world, including in the United Kingdom, New Zealand, Canada, and Australia. There have also been a series of studies which have focused on a mixture of individual and team sports in Russian and Swedish populations (e.g., Stambulova, 1994; Stambulova, Franck, & Weibull, 2012).

Although individual studies conducted on the junior-to-senior transition present valuable insight into the transition in context and culturally specific domains, what they do not identify are the common methodological and theoretical features, data analysis methods, and results which are prevalent across literature conducted in this research area (see Paterson, Thorne, Canam, & Jillings, 2001). Such collective knowledge is valuable as it enables a critique of methodological and theoretical approaches used and also a synthesis of research findings. Given this, a synthesis of the junior-to-senior transition will add to the body of knowledge in this research area to inform and improve research, education, and clinical practice. Precisely, a systematic approach to analysis of current literature in the research area will guide researchers to generate new knowledge by identifying current trends in the literature and gaps in current knowledge. This approach will help direct guidelines for future

research and allow identification of challenges athletes may face and the resources available which may need to be targeted when supporting athletes moving to senior sport.

To date, there has been no meta-study of research on the junior-to-senior transition. The purpose of the current study, therefore, is to provide a review of current qualitative literature focused on the junior-to-senior transition. Specifically, this study will: (a) provide an overview and critique of methodological and theoretical decisions which underpin current junior-to-senior transition literature; (b) systematically review, evaluate, and analyse literature on the junior-to-senior transition in sport regarding key factors that are perceived to influence the transition; and (c) provide a synthesis of findings regarding the factors that influence the junior-to-senior transition in sport.

## **4.2 Method**

As the current study focused on systematically reviewing the literature associated with the junior-to-senior transition, a meta-study approach was used. A meta-study involves a systematic approach to the collation and evaluation of research (Anthony, Gucciardi, & Gordon, 2016) and consists of a number of steps including a systematic literature search, data extraction, meta-method (the analysis of methods), meta-theory (the analysis of theory), meta-data-analysis (the analysis of findings), and meta-synthesis (the integration of findings from the meta-data, meta-method, and meta-theory analyses; Barnett-Page & Thomas, 2009). As the research area under consideration in the current study is still in its infancy in comparison to other transition literature such as retirement (Morris, 2013), the current study is looking to explore the factors associated with the process, rather than speculate on potential relationships between variables. The majority of literature on the junior-to-senior transition is qualitative, owing itself to an approach which systematically evaluates this type of literature. Outlined below are the key steps undertaken in this meta-study.

### **4.2.1 Inclusion and Exclusion Criteria**

To ensure the inclusion of a broad spectrum of research attached to the topic area, studies had to be: (a) published in the English language to ensure consistency in the appraisal of articles, (b) available in full-text to allow for a detailed appraisal of findings, and (c) contain qualitative data specifically pertaining to factors associated with the junior-to-senior transition in sport. These inclusion criteria ensured that the study did not limit the types of research included - journal articles, dissertations, and grey literature were all able to be included. When data from studies were published in multiple ways, then studies were reported with journal articles taking preference to dissertations. However, if dissertations contained additional findings not reported in published journal articles, then both pieces of research were included in the review. Following the suggestion by Paterson et al. (2001) that individual meta-studies should determine whether or not to exclude studies based upon methodological quality, therefore the Critical Appraisal Skills Programme (CASP, 2018) was used to systematically appraise the quality of all studies included in the meta-study. The CASP is a 10-item checklist used to appraise qualitative research and includes items such as - was there a clear statement of the aims of the research, was the recruitment strategy appropriate to the aims of the research, have ethical issues been taken into consideration, and is there a clear statement of findings? The findings from the CASP analysis are available in Appendix A. Following CASP, no studies were excluded due to methodological quality.

### **4.2.2 Systematic Literature Search**

To identify articles which were focused on the junior-to-senior transition in sport and which fulfilled the inclusion criteria, Google Scholar, PubMed, ProQuest, and The World of Knowledge electronic databases were searched for appropriate titles and abstracts using the terms “within career transition”, “junior-to-senior transition”, “junior-to-senior transition”, and “sport transition” or truncations thereof (e.g., sport tran\*). Examination of the following

journals also took place: *The Sport Psychologist*, *International Journal of Sport and Exercise Psychology*, *Journal of Applied Sport Psychology*, *Journal of Sport & Exercise Psychology*, *Journal of Sport Behavior*, *Medicine and Science in Sport and Exercise*, *Journal of Sports Sciences*, *Sport and Exercise Psychology Review*, *Research Quarterly in Sport and Exercise*, *International Review of Sport and Exercise Psychology*, *Journal of Sport Psychology*, and *Psychology of Sport and Exercise*. These databases and journals were searched as they are prominent within the field and they were also accessible to the research team. There was no limit to search parameters in terms of publication date. Once an original list of articles which were associated with the junior-to-senior transition was developed, additional studies with a potential focus on the junior-to-senior transition were gathered through the reading the reference lists of these original articles and added to create a final list of articles for review. In total, 219 articles underwent further review from the initial keyword, title, and abstract searches performed on the selected electronic databases ( $n = 201$ ) and subsequent bibliographic screening of identified articles ( $n = 18$ ). Following initial review and removal of duplicates, 41 articles potentially achieved the inclusion criteria and focused specifically on the junior-to-senior transition - these studies were retained for initial screening. After a more detailed abstract review, articles ( $n = 30$ ) underwent a full-text review, with 3 excluded from final analysis for employing exclusively quantitative methods (Chamorro, Torregrosa, Oliva, Calvo, & León, 2016; Eriksson, 2010; Stambulova, Franck, & Weibull, 2012), leaving a total of 27 studies included in the final meta-study. Among the 27 studies, one was a PhD containing two independent samples (Hollings, 2014), while two PhD's contained three independent samples (Morris, 2013; Pummell, 2008). PhD thesis studies were considered individually and are referred to as paper a, b, and c in the write up (Hollings, 2014; Morris, 2013; Pummell, 2008). All 27 studies were published between 2004 and 2018. The search strategy was initiated in December 2016 and was regularly being reviewed and updated until

October 2018. A flow diagram (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009) of the search and retrieval strategies are depicted in Figure 4.1.

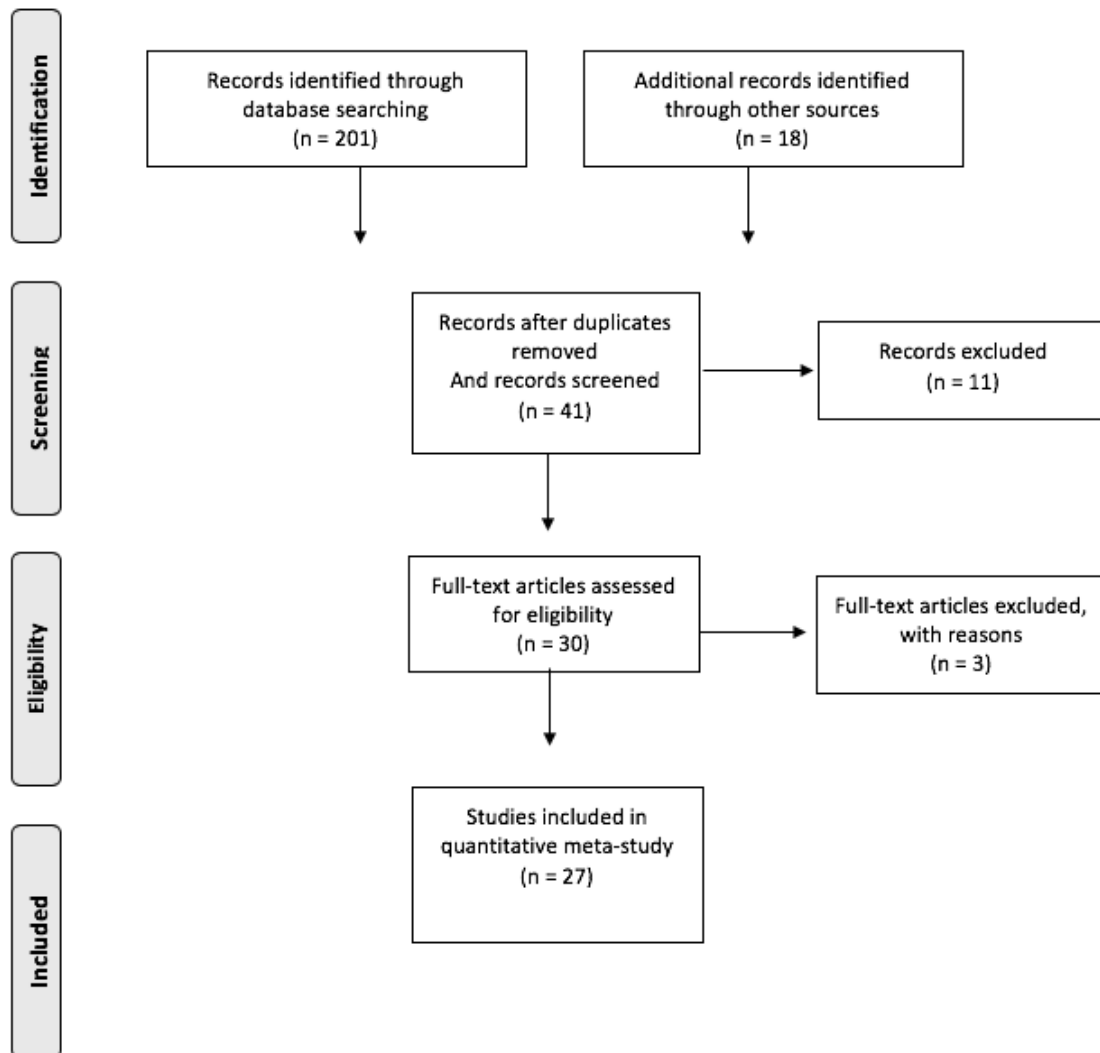


Figure 4.1. PRISMA flowchart of search and retrieval strategies

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

#### 4.2.3 Data Extraction and Management

After the initial review of all full-text articles was completed, hard copies of the studies were obtained, and data extraction commenced. Each article was read numerous times by the author to ensure familiarity with the findings. Data were then extracted onto a custom-

made data extraction form, which was then copied directly into an excel spreadsheet. This data extraction process allowed for the recording of significant and relevant aspects of each study (e.g., samples characteristics, data analysis), and to ensure accuracy and consistency throughout the review process. Data from the data extraction were entered into the corresponding columns as the analysis progressed through each of the studies (e.g., participant gender, type of sport).

#### **4.2.4 Meta-Method Analysis**

Following data extraction, a meta-method analysis took place. A meta-method analysis offers a means for researchers to review and evaluate the research design and methodologies used in studies of the research area to analyse the effect these choices have on the findings and outcomes of a particular study (Paterson et al., 2001). In the current study, meta-method was used to identify how the methodology that has been applied to study the junior-to-senior transition has shaped the current knowledge. The meta-method procedure involves two phases: (a) the initial appraisal of primary research studies regarding research design and methodology, and (b) an overall appraisal of the themes within the primary research studies. The appraisal of the individual primary studies includes a review of the research question, the researcher and setting, the sampling procedure and data collection procedure (Paterson et al., 2001). During this phase of the meta-method analysis, the specific methodological characteristics of each research article were established. Specific characteristics recorded included research design, data collection techniques, sample size, gender and age of participants, type of sport, competitive level, and country of study. Following this, the next phase of the meta-method involved an overall appraisal of the body of work. As recommended by Paterson et al. (2001), tables were constructed to compare and contrast the primary studies. Tables contained all of the information which emerged in phase one of the meta-method, which enabled identification of themes and patterns within the

literature. By identifying these features, the current study identifies potential sampling gaps and avenues for future research within the literature. The meta-method analysis was carried out by the author, with the supervisor of the thesis providing a critical friend review.

#### **4.2.5 Meta-Theory Analysis**

Alongside the meta-method analysis, a meta-theory also took place. The purpose of meta-theory was to analyse the theoretical frameworks used to study the research area and the implications this has on the current literature so that the existing theory can be critically interpreted, assessed, and developed into a new theory, as established in the current meta-synthesis (Paterson et al., 2001).

In this instance, meta-theory provides the researchers with a systematic method to understand and evaluate the theoretical underpinnings that drive qualitative research on the junior-to-senior transition. The initial procedure of meta-theory involved reading the primary research studies, taking note of the theoretical propositions and emergent theory that underpinned the work. The theoretical underpinnings of the studies included in the meta-study were identified and documented in a table. This analysis helped to identify prominent theory or paradigms that underlie the study of the junior-to-senior transition. Identifying the theoretical assumptions of each research study helped give a clearer understanding of the diversity of theoretical underpinnings of the work and the way these theories influence the interpretation of the primary research findings. Meta-theory analysis was carried out by the author, with critical friend review being provided by the supervisor of the thesis.

#### **4.2.6 Meta-Data Analysis**

Subsequently, a meta-data analysis took place. A meta-data analysis involves the examination of findings from the primary studies to identify common themes within the literature (Paterson et al., 2001). Data refers to the analysis and subsequent interpretation made by the authors of the primary research (Tamminen, & Holt, 2010) - in this instance, the

data captured related to factors that were perceived to influence the transition from junior-to-senior sport. As identified earlier, identification of the main themes which are prominent in the junior-to-senior transition literature provides a more comprehensive and rigorous understanding of the main features underpinning the process.

A six-step thematic synthesis, as outlined by Braun, Clarke, Hayfield, and Terry (2019) was used to perform the meta-data analysis. This process of analysis involved: (1) familiarisation with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing up the process. Initial stages of data analysis involved the initial coding of the findings and developing descriptive themes. The raw data was collected for each primary study and assigned an initial code. Codes from each of the studies were initially noted on the custom-made review forms and then transferred to the corresponding spreadsheet as outlined above. After reviewing all 27 studies, a final spreadsheet was created containing a list of all of the initial codes identified in the literature ( $n=561$ ). Subsequent stages of the thematic synthesis involved the generation of themes, via a process of searching for themes and reviewing of themes. Groups of themes of similar meanings (e.g., determination to succeed, drive to achieve, work ethic and desire) were identified, with the author ascertaining similarities and differences between the initial codes and categorising them accordingly. The author and project supervisor then evaluated the data analysis process via a face-to-face meeting which took place. This evaluation involved the second author reading and re-reading corresponding articles, the themes that had been highlighted by the author and critiquing the analysis which had been carried out. Discussion took place on any discrepancies highlighted by the evaluation process, and a final list of pertinent themes was created. Finally, theme names were created to encompass the meaning of the new groups (Braun et al., 2019).

#### **4.2.7 Meta-Synthesis**

The final stage of the meta-study involved a meta-synthesis. The meta-synthesis brings together the interpretations drawn from the meta-method analysis, meta-theory analysis, and meta-data-analysis. A meta-synthesis of qualitative research is used to identify common themes and to compare differences on a particular subject that would not usually be available via a single study (Erwin, Brotherson, & Summers, 2011). Therefore, the purpose of the current meta-synthesis was to explore the key findings from primary research reports and integrate this into a coherent account. The synthesis aimed to contribute to a complete understanding of the junior-to-senior transition in sport, with particular focus on the methods and theories that have been used to research the process and to identify key attributes that are perceived to be associated with a successful transition. An increased understanding of the key elements that influence the transition can help inform coaches, athletes, and other key stakeholders about the factors that may facilitate the transition and they may subsequently look to invest in and develop certain resources amongst transitioning athletes. It can also help inform researchers on the key features of previous research and areas for development. The process of conducting the meta-synthesis was carried out by the author and solidified via critical review carried out by the project supervisors.

#### **4.2.8 Rigor**

In judging rigor, I would like the current meta-study evaluated by the following five criteria: (a) transparency – that is the approach taken is clear to the reader, (b) coherency – that is the way different parts of the interpretation create a complete and meaningful picture, (c) width – that is the comprehensiveness of the evidence provided, (d) impact – that is do the results affect the reader and create new questions and ways of practicing, and (e) substantive contribution – that is, does this piece contribute to the understanding of life (Smith & Caddick, 2012). In an attempt to achieve rigor, I have carried out several strategies in the

appraisal of the primary research reports. First, the authors have described and explained the rationale for the meta-study process, including the purpose of the meta-study, sampling of primary research articles, data collection, and data interpretation. In addition, the procedures used were documented throughout the meta-study process in order for the project supervisors, and others, to determine the trustworthiness of the data. Project supervisors continually questioned and attempted to discredit the interpretations of the data. Finally, through regular meetings, the research team compared and contrasted the meta-study findings and discussed any issues that arose.

### **4.3 Results**

#### **4.3.1 Meta-Method**

Please see table 4.1 for a breakdown of the key study characteristics of qualitative research which has focused on the junior-to-senior transition. Across the 27 studies analysed, the majority of studies were carried out within European countries ( $n = 22$ ), including Sweden, the United Kingdom, and Spain. Other studies were carried out in Australia, New Zealand, and Canada ( $n = 5$ ). With the majority of work conducted being carried out in Europe, there may be an overriding dominance of participants' experiences from these countries in the literature. Research has supported the assumption that transitions within different countries and cultures can present athletes with unique challenges (Finn & McKenna, 2010). Given this overreliance, results may not necessarily be transferrable to contexts outside Europe. Stambulova et al. (2009) highlighted the impact that cultural values can have on transition research and how the socio-cultural context can influence athletes in respective countries. For example, a country, such as Sweden, that demonstrates a horizontal individualist culture, values the individual and supports low competitiveness.

Table 4.1  
*Study Characteristics of the Primary Research Reports*

Author (year of publication)	Country	N	Mean Age	Type of Sport	Gender	Participant Breakdown	Method of Data Collection	Method of Data Analysis	Theory
Alge (2008)	Sweden	6	m=27	Equestrian	Female (3) Male (3)	Elite athletes	Semi-structured interview	Deductive and inductive analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 1993, 2003)</li> <li>The developmental model (Wylleman &amp; Lavalée, 2004)</li> </ul>
Bennie & O'Connor (2006)	Australia	20	Not identified	Track-and-field	Not identified	Current athletes (7) Ex-athletes (6) Elite coaches (2) Athletics administrators (5)	Semi-structured interview	Deductive content analysis	<ul style="list-style-type: none"> <li>Not identified</li> </ul>
Bruner, Munroe-Chandler, & Spink (2008)	Canada	8	m=17	Ice hockey	Male	Elite amateur athletes	Focus group	Phenomenological analysis	<ul style="list-style-type: none"> <li>The developmental model (Wylleman &amp; Lavalée, 2004).</li> </ul>
Čačija (2007)	Sweden	9	m=? (range = 16-21)	Basketball	Female (5) Male (4)	Senior club athletes	Semi-structured interview	Sentence categorisation; deductive and inductive analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> <li>The developmental model (Wylleman &amp; Lavalée, 2004)</li> </ul>
Finn & McKenna (2010)	UK	7	m=45	Rugby league (2) Rugby union (2) Football (3) Cricket (1) *one coach worked in elite rugby union and football	Male	Coaches	Semi-structured interview	Deductive and inductive analysis	<ul style="list-style-type: none"> <li>The developmental model (Wylleman &amp; Lavalée, 2004).</li> <li>Cognitive theory of stress and coping (Lazarus, &amp; Folkman, 1980)</li> </ul>
Franck, & Stambulova (2018a)	Sweden	2	m=26	Swimming; Tennis	Female (1) Male (1)	Ex-athlete	Narrative Interview	Holistic-form structural analysis (Smith 2016)	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 1993, 2009)</li> <li>The holistic athletic career model (Wylleman, Reints, &amp; De Knop, 2013)</li> </ul>

									<ul style="list-style-type: none"> <li>• The ecological model of human development (Bronfenbrenner, 1979)</li> <li>• The athletic talent development environment model (ATDE; Henriksen, 2010)</li> </ul>
Franck, & Stambulova (2018b)	Sweden	2	m=23	Football (1) Basketball (1)	Female (1) Male (1)	Ex-athletes	Narrative Interview	Holistic-form structural analysis (Smith 2016)	<ul style="list-style-type: none"> <li>• The athletic career transition model (Stambulova, 1993, 2009)</li> <li>• The holistic athletic career model (Wylleman, Reints, &amp; De Knop, 2013)</li> <li>• The ecological model of human development (Bronfenbrenner, 1979)</li> <li>• The athletic talent development environment model (ATDE; Henriksen, 2010)</li> </ul>
Hollings (2014a)	New Zealand	11	Not identified	Track-and-Field	Female (6) Male (5)	Elite junior	Semi-structured interview	Deductive and inductive analysis; hierarchical content analysis	<ul style="list-style-type: none"> <li>• The athletic career transition model (Stambulova, 2003)</li> </ul>
Hollings (2014b)	New Zealand; Australia	7	Not identified	Track-and-Field	Not identified	Not identified	Focus group	Deductive analysis	<ul style="list-style-type: none"> <li>• The athletic career transition model (Stambulova, 2003)</li> </ul>
Jones, Mahoney, & Gucciardi (2014)	Australia	26	Players; m=22 staff; m=47	Rugby league	Male	Athletes (17) Coaches (9)	Semi-structured interview	Inductive thematic analysis	<ul style="list-style-type: none"> <li>• Job-demands-resources model (Demerouti, Bakker, Nachreiner, &amp; Schaufeli, 2001)</li> </ul>
Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009)	Spain	5	m=? (range = 17-22)	Basketball	Not identified	Athletes	Semi-structured interview	Côté, Salmela, Baria, & Russell (1993); coding meaningful data, creating categories	<ul style="list-style-type: none"> <li>• Not identified</li> </ul>
Mills, Butt, Maynard, & Harwood (2012)	UK	10	m=48	Football	Not identified	Coaches	Semi-structured interview	Deductive and inductive content analysis	<ul style="list-style-type: none"> <li>• Differentiated model of giftedness and talent 2.0 (Gagne, 2009)</li> </ul>

Morris, Tod, & Eubank (2017)	UK	5	m=? (range = 17-19)	Football	Male	Athletes	Semi-structured interview	Abductive thematic content analysis	<ul style="list-style-type: none"> <li>The developmental model (Wylleman &amp; Lavallee, 2004).</li> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Morris, Tod, & Oliver (2015)	UK	17	m=34	Football	Female (3) Male (14)	Coaches (4) Managers (2) Athletes (6) Parents (4) Sport psychologist (1)	Interview - unknown format	Deductive thematic content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Morris, Tod, & Oliver (2016)	UK	28	m=49	Football	Female (4) Male (24)	Coaches (12) Sport physiologists (2) Sport psychologists (4) Physiotherapists (3) Sport therapist (1) Parents (6)	Semi-structured interview	Abductive thematic content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> <li>The developmental model (Wylleman &amp; Lavallee, 2004).</li> </ul>
Morris (2013a)	UK	12	m=49	Football	Male	Managers (5) Coaches (7)	Semi-structured interview	Thematic content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Morris (2013b)	UK	16	m=? (range = 25-61)	Football	Female (4) Male (12)	Parents (6) Sport Physiologist (2) Sport Psychologist (4) Physiotherapists (3) Sport Therapist (1)	Semi-structured interview	Thematic content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Morris (2013c)	UK	11	m=19	Football	Male	Athletes (11) Coaches (2) Managers (2)	Semi-structured interview	Thematic content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Olsson & Pehrson (2014)	Sweden	10	m=? (range = 19-43)	Ice-hockey	Male	Athletes (7) Coaches (2) Ex-Athlete (1)	Semi-structured interview	Deductive and inductive content analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> </ul>
Pummell (2008a)	UK	9	m=25	Tennis (2) Squash (4) Equestrian (3)	Female (5) Male (4)	Athletes (8) Ex-athlete (1)	Semi-structured interview	Grounded theory	<ul style="list-style-type: none"> <li>Not identified</li> </ul>
Pummell (2008b)	UK	1	m=19	Tennis	Male	Athlete	Semi-structured interview	Pattern matching	<ul style="list-style-type: none"> <li>Not identified</li> </ul>
Pummell (2008c)	UK	1	m=19	Tennis	Male	Athlete	Semi-structured interview	Grounded theory	<ul style="list-style-type: none"> <li>Not identified</li> </ul>

Pummell, Harwood, & Lavallee (2008)	UK	10	m=17	Equestrian	Female (8) Male (2)	Athletes (regional level)	Semi-structured interview	Deductive and inductive analysis	<ul style="list-style-type: none"> <li>The developmental model (Wylleman &amp; Lavallee, 2004).</li> <li>The model of human adaptation to transition (Schlossberg, 1981)</li> </ul>
Pummell & Lavallee (2019)	UK	7	m=15	Tennis	Female (3) Male (4)	Elite junior athletes	Mixed methods single-subject design (questionnaires and qualitative social validation)	Deductive content analysis	<ul style="list-style-type: none"> <li>The model of human adaptation to transition (Schlossberg, 1981)</li> <li>The athletic career transition model (Stambulova, 2003)</li> <li>The holistic athletic career model (Wylleman, Reints, &amp; De Knop, 2013)</li> </ul>
Røynesdal (2015)	UK	8	m=? (range = 28-59)	Football	Male	Coaches	Semi-structured interview	Hierarchical content analysis	<ul style="list-style-type: none"> <li>Job demands-resources model (Jones, Mahoney, &amp; Gucciardi, 2014)</li> </ul>
Stambulova, Pehrson, & Olsson (2017)	Sweden	7	m=? (Range = 18-30)	Ice-hockey	Not identified	Athlete	Semi-structured interview	Deductive/theoretical thematic analysis	<ul style="list-style-type: none"> <li>The athletic career transition model (Stambulova, 2003)</li> <li>The developmental model (Wylleman &amp; Lavallee, 2004)</li> <li>The holistic athletic career model (Wylleman, Reints, &amp; De Knop, 2013)</li> </ul>
Vujic (2004)	Sweden	2	m=22	Swimming	Female (1) Male (1)	Athlete (1) Ex-athlete (1)	Semi-structured interview	Deductive and inductive analysis	<ul style="list-style-type: none"> <li>The sport career transition model (Stambulova, 1997)</li> </ul>

Whereas, vertical individualist cultures, such as the USA, encourages competition between individuals, in contrast to vertical collectivist cultures (e.g., China, Russia), which supports competition between groups and people and prioritises the interests of the state over the individual (Stambulova et al. 2009). Stambulova et al. (2009) concluded that cultural idiosyncrasies, socio-historical context, and geographical location could influence sport, sport system, and athletes in their respective countries. Given this, future transition research should be more socio-culturally informed and could look to explore the transition experiences of athletes involved in different contexts across the World. For example, the college system in America can present athletes with delayed junior-to-senior transitions, with athletes perhaps in their early 20s before making the move. Such work will help gain further understanding of the junior-to-senior transition across domains.

Apart from two studies which used focus groups as their method of choice, the primary data collection method was interviews (e.g., semi-structured; 25 studies; see Bennie & O'Connor, 2006; Jones et al., 2014). Data analysis was carried out in several ways, including via inductive and deductive thematic analysis, phenomenological analysis, structural analysis, grounded theory analysis, pattern matching, and content analysis. A majority of the studies primarily used singular retrospective, semi-structured interviews. Not only does this method depend on participants ability to recall relevant information, but only provides data on a snapshot of the transition experience (e.g., Bennie & O'Connor, 2006; Lorenzo et al., 2009; Røynesdal, 2015). The use of this method does not acknowledge the transition process in its entirety and fails to recognise any potential changes athletes and stakeholders might perceive during various points throughout the transition. In one study, football coaches supported the notion that the transition process is continually changing and dynamic process, with athletes continually having to cope with varying transition demands and barriers (Morris, 2013a). Three studies in the current meta-study analysed the transition

longitudinally, and also suggested that there are individual differences regarding athletes' approaches to the transition, including their preparation, coping, and perceptions of transition (Morris, 2013c). Therefore, much of the data collected around the transition from junior-to-senior transition may be idiosyncratic, focused on specific elements of the process and failing to understand the whole experience. Given this, future work which goes beyond interview-based studies, perhaps focus groups (see Hollings, 2014b), ethnographic studies (see Krane & Baird, 2005), and action research (see Bradbury-Huang, 2010; Richardson, Gilbourne, & Littlewood, 2004) studies may help unpick further transition experiences of athletes. Further use of narrative approaches (e.g., Franck & Stambulova, 2018b) and longitudinal approaches (e.g., Morris, 2013), which help give an understanding of individual experiences of transition, are also encouraged.

In total, the research has captured 261 participants' experiences of the junior-to-senior transition. The participant profile was broken down into - current athletes ( $n = 127$ ), coaches ( $n = 63$ ), parents ( $n = 16$ ), ex-athletes ( $n = 13$ ), sport psychologists ( $n = 9$ ), team managers ( $n = 9$ ), physiotherapist ( $n = 6$ ), athletics administrators ( $n = 5$ ), sports physiologist ( $n = 4$ ), and sport therapist ( $n = 2$ ). The remaining participants ( $n = 7$ ) were not identified. A total of 15 studies included solely athlete participants, three used coaches exclusively, with the remaining studies ( $n = 9$ ) using a combination of various participants. Sample sizes across studies ranged from 1-28 participants. Across the studies, 11 contained participants of both genders, with 11 studies containing solely male participants. The remaining studies ( $n = 5$ ) did not specify the gender of their participants. Participants studied came from a range of competitive sport levels, including club/non-professional, elite, and professional. Studies analysed participants' experiences from team sports ( $n = 16$ ), individual sports ( $n = 10$ ), or a mixture of individual and team sport stakeholders ( $n = 1$ ).

Across the studies, there appears a broad perspective of key stakeholders involved in the junior-to-senior transition. However, a number of studies in the current review combined participants perceptions of the transition (e.g., coach, athlete, ex-athlete, parents) with varying demographics (e.g., age, gender, stage of transition, sport) and failed to recognise individual differences when negotiating the transition (e.g., Bennie, & O'Connor, 2006; Morris et al., 2017). For example, both Finn and McKenna (2010) and Pummell (2008a) explored the transition across multiple sports but did not consider how the type of sport might influence athletes' junior-to-senior transition. There are several different demands, barriers, and resources which could influence the transition outcome and may vary according to individual sports (Bruner et al., 2008). For example, a football player negotiating the transition from the academy team to the first team might experience a different transition compared to an individual athlete in track-and-field. Teammates and managers are likely to play a more significant role in supporting a transitioning football player (Morris, 2013), whereas a track-and-field athlete might rely more on their parents or coach for support during the transition (Hollings, 2014b). Individual variation should be considered when making the transition into senior sport, instead of providing an overall, broad representation of a group of athletes' transition experiences. Furthermore, the data highlights that there is a lack of work which has focused on solely female participants. Similarly, there appears to be a lack of research exploring the junior-to-senior transition across diverse ethnicities and disabled or physically impaired athletes. Given the differences in experiences these athletes may have, due to the range of challenges they may experience, work which focuses on understanding the junior-to-senior transition with a more diverse participant sample (e.g., when athletes go through Ramadan or similar) will help advance knowledge in the research area.

### 4.3.2 Meta-Theory

Meta-theory analysis was used to establish the theoretical underpinnings of the research articles included in the meta-study. The main theoretical models cited in the literature were: the athletic career transition model (Stambulova, 2003), the developmental perspective on transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational levels (Wylleman & Lavalley, 2004), and the holistic athletic career model (Wylleman, Reints, & De Knop, 2013), which were used to underpin 19 studies. Other models used to underpin research included: the model of human adaptation to transition (Schlossberg, 1981); the differentiated model of giftedness and talent 2.0 (Gagne, 2009); job-demands-resources model (JD-R; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001); the athletic talent development environment model (ATDE; Henriksen, 2010); the ecological model of human development (Bronfenbrenner, 1979); and the cognitive theory of stress and coping (Folkman & Lazarus, 1980).

With a clear body of work being underpinned by two theoretical frameworks, the developmental model (Wylleman & Lavalley, 2004) and the athletic career transition model (Stambulova, 2003), there is a risk that the work focused on the junior-to-senior transition may again become idiosyncratic in nature, with questions and analysis taking place guided by this work. Notably, key features of the frameworks which influence the research on the junior-to-senior transition are the age at which athletes' transition and the process that they will go through. For example, Wylleman and colleagues (2004; 2013) suggest that athletes will transition into senior sport at approximately 18 or 19 years old. Although this might be the case, in many sports (e.g., gymnastics or golf) the transition may occur much earlier or later in athletic careers. This shift to an earlier or later transition may mean more diverse factors may influence the process of transition. Wylleman and colleagues (2004; 2013) also highlight that at earlier stages of athletes' careers, they may experience additional challenges

at the psychological, psychosocial, and academic/vocational levels, amongst others (e.g., the transition adolescence and to secondary education). If the transition occurs at a later time point, athletes may have other considerations, such as vocational development, which they need to consider, again influencing their transition (Wylleman and colleagues, 2004; 2013). Stambulova (2003) identified the transition to senior sport as a process where athletes have to cope with a set of demands and barriers with a set of available resources to achieve the desired outcome. Other frameworks have proposed (see Richardson, Relvas, and Littlewood, 2013) that cultural considerations are also vital in this process. Richardson et al. (2013) contend that moving up to senior sport can often be moving from an environment which is extremely supportive of development to one which is bereft of appropriate support and extremely demanding of athletes. These cultural considerations are often missing from the junior-to-senior transition literature, with studies tending to focus on athletes' individual experiences.

Collectively, the use of the two main theoretical frameworks which have informed most of the data collection and analysis (Wylleman and colleagues, 2004; 2013; Stambulova 2003) have meant that the focus of questioning has been, primarily, on what some sports may see as a normal development pathway, to the exclusion of questions which focus on other areas of development (e.g., the transition to adolescence, vocational development, cultural considerations). Given this, future work which broadens the underpinning theories used may help advance knowledge on the process of moving to senior sport.

### **4.3.3 Meta-Data**

The meta-data analysis identified 59 factors in the literature that were perceived to influence the quality of athletes' junior-to-senior transition. All 59 factors were categorised into one of 13 themes: perceptions of the transition, psychological factors, personal development factors, performance development factors, social support, motivation, sources of

stress, physical factors, organisational culture and values, youth culture and values, coping strategies, mentoring / modelling, and educational programs. Below, these 13 factors are discussed as one of 4 overarching themes: individual factors, external factors, cultural factors, and intervention strategies.

**4.3.3.1 Individual Factors.** At the individual level, three higher-order themes were perceived to influence athletes' junior-to-senior transition, which were: athletes' perceptions of the transition, psychological factors, and personal development. These three higher-order themes were made up of a total of 23 lower-order themes (see table 4.2).

**4.3.3.1.1 Perceptions of Transition.** This higher-order theme is made up of two lower-order themes; transitional expectations and understanding the transition process. Research (e.g., Pummell et al., 2008) has highlighted that there is a belief that the junior-to-senior transition is characterised by a number of factors, including a lack of control over the transition process, an increase in stress and anxiety, and negative transitional experiences (e.g., reduction in confidence and poor performance). Čačija (2007) highlighted that some athletes perceived the transition as an adverse event from the outset due to the increased number of demands it placed upon them. Conversely, positive transitional experiences (e.g., enjoyment, positive performance, and gaining experience) were also highlighted by the research (e.g., Morris et al., 2015). Fundamentally, athletes' perception of the transition, and how accurate (or otherwise) this is, may determine the influence their perceptions have on transition outcomes. If athletes perceive the transition to be more difficult than it is or underestimates the challenge they are experiencing, they are likely to experience a more difficult process (Morris, 2013). In one study, a coach described that athletes might benefit from having an understanding of the transition process, stating it "may help them to prepare more effectively as they won't assume that they will be successful straight away, and will work harder to ensure their success" (Morris et al., 2016).

Table 4.2  
*Individual Factors Associated with the Junior-to-Senior Transition*

Theme	Factors	Studies	N	Representative quote
<b>Perceptions of Transition</b>	Transitional expectations	Čačija (2007); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2015); Morris, Tod, & Eubank (2017); Olsson, & Pehrson (2014); Pummell (2008b); Pummell, Harwood, & Lavallee (2008); Stambulova, Pehrson, & Olsson (2017)	8	There're times when I think that, yeah this is how I expected it to go, but there's also times where I think I've been surprised by the depth of competition. (Pummell, 2008b)
	Understanding the transition process	Alge (2008); Franck, & Stambulova (2018b); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2016); Olsson, & Pehrson (2014); Pummell, & Lavallee (2019)	6	[Understanding the transition] may help [athletes] to prepare more effectively as they won't assume that they will be successful straight away and will work harder to ensure their success" (Morris, Tod, & Oliver, 2016, p.382).
<b>Psychological Factors</b>	Determination to succeed and work hard	Alge (2008); Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018a); Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2015); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Pummell, Harwood, & Lavallee (2008); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	18	The guys who are most motivated and have a high level of determination to succeed are the ones who are most successful long term (Morris, 2013a, p. 84)
	Awareness (self & others)	Alge (2008); Čačija (2007); Finn & McKenna (2010); Franck, & Stambulova (2018a); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b);	18	I just lost sight a bit of my own kind of journey and felt a bit somehow like meaningless compared to what he was doing, especially in that group environment. Yeah, so it just took me sort of, it took me a while to get my realistic perspective back

	Morris (2013c); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)		because as I said, everybody has their own path and everybody's doing different things (Pummell, 2008b, p.174)
Confidence	Alge (2008); Čačija (2007); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	14	If you can have that belief that you can do it or, even if you didn't do it the first time...you go and practice that and you're going to get it eventually (Jones, Mahoney, & Gucciardi, 2014, p. 36).
Adaptability	Čačija (2007); Finn & McKenna (2010); Franck, & Stambulova (2018a); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Morris, Tod, & Oliver (2016); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	12	Think how quickly I adapted to that, because I was playing it all the time, I was able to adapt to it so if I can get into that sort of level, and play those sort of players week in week out, there's no reason why it would take me any longer than it had in the Futures, just being able to get myself in to that position often enough (Pummell, 2008b, p.177)
Intrinsic motivation	Alge (2008); Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Hollings (2014a); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013c); Olsson, & Pehrson (2014); Pummell, Harwood, & Lavallee (2008)	11	I have to do it; because football makes me happy and this is the one thing I have always wanted to do (Morris, Tod, & Eubank, 2017, p.12).

Competence and responsibility	Alge (2008); Bruner, Munroe-Chandler, & Spink (2008); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Pummell (2008c); Pummell, & Lavallee (2019); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	9	You grow. Especially when I moved here then, when you move away from home and have to take responsibility on that level as well with everything from doing laundry, cleaning, cooking and job and own apartment” (Olsson & Pehrson, 2014, p. 22).
Athletic identity	Franck, & Stambulova (2018a); Hollings (2014a); Hollings (2014b); Jones, Mahoney, & Gucciardi (2014); Pummell (2008a); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008)	8	You’re not just an athlete, you’re someone else as well...and you’re not going to be the best at everything...knowing your strengths and weaknesses...having a vision of what you want to be (Jones, Mahoney, & Gucciardi, 2014, p. 36)
Good attitude	Alge (2008); Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Morris (2013a); Morris (2013b); Pummell (2008a); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	8	It’s about attitude. For example, you can’t be the last one to arrive and the first one to leave. You should be the first to arrive at practices and the last one to leave” (Stambulova, Pehrson & Olsson, 2017, p. 236).
Focus	Čačija (2007); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013c); Olsson, & Pehrson (2014); Stambulova, Pehrson, & Olsson (2017)	7	The ability to shut out things external to the programme is vitally important (Mills et al., 2012, p. 1598)
Team-oriented	Čačija (2007); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Mills, Butt, Maynard, & Harwood (2012); Olsson, & Pehrson (2014); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	7	You then [need] to become part of the team and you feel like you’re working toward a common aim because if you’re going to be successful you need a good team spirit and togetherness (Røynesdal, 2015, p.25)
Mental strength/resilience	Čačija (2007); Mills, Butt, Maynard, & Harwood (2012); Olsson, & Pehrson (2014); Pummell,	7	It is necessary to be mentally strong and be prepared for potential setbacks in the senior

		Harwood, & Lavallee (2008); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)		ice hockey ... It's not just moving full speed forward all the time" (Stambulova, Pehrson & Olsson, 2017, p. 236).
	Commitment	Bennie & O'Connor (2006); Morris (2013a); Morris (2013b); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019); Stambulova, Pehrson, & Olsson (2017)	6	A lot of the boys who play with [son's name] are lazy, and I think that gets exposed much more when they move to the first team. You can see just how lazy they are (Morris, 2013b, 138)
	Complacency	Jones, Mahoney, & Gucciardi (2014); Morris (2013a); Olsson, & Pehrson (2014); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	5	[skilful player] but was lazy and did not carry out any additional training, which had hindered his development long term (Morris, 2013a, p. 88)
	Negative thoughts/beliefs about ability	Alge (2008); Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018a); Olsson, & Pehrson (2014)	5	When you start performing worse you get these negative thoughts. You think you are worse than you really are. It becomes a downward spiral (Čačija, 2007, p. 11).
	Mental preparation	Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Stambulova, Pehrson, & Olsson (2017)	4	If they don't prepare themselves mentally, they suffer the consequences when they do move up as they become overawed and some of them panic (Morris, 2013b, p.121)
	Coachability	Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012)	2	Your ability to absorb information, taking feedback, act on it and be prepared to keep working on it (Jones, Mahoney, & Gucciardi, 2014, p.36).
<b>Personal Development</b>	Achieving a life balance	Alge (2008); Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018a); Hollings (2014b); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Olsson, & Pehrson (2014); Pummell	12	Fitting athletics around university, I just find it's quite hard. It's annoying not having flexibility with classes. And now, when I'm going to World Juniors, I'm missing three weeks and the lectures (Hollings, 2014b, p. 106)

	(2008a); Pummell (2008c); Pummell, & Lavallee (2019); Vujic (2004)		
Developing sport-specific knowledge	Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008c); Pummell, & Lavallee (2019); Røynesdal (2015)	10	It's all about the knowledge you have and bringing it forward when you move into the first team. Like, take a young right-back, for example, he has been told what to do and what position he should be in for years, and he needs to bring that into the first team with him. (Morris, 2013a, p.85)
Focus on personal growth and development	Alge (2008); Bruner, Munroe-Chandler, & Spink (2008); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2016); Pummell (2008a); Pummell (2008c); Pummell, & Lavallee (2019)	7	It made me grow up pretty quickly...you've got no choice. No one's going to cook your dinner if you don't cook it (Jones, Mahoney, & Gucciardi, 2014, p. 34).
Making the most of opportunities	Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Olsson, & Pehrson (2014); Stambulova, Pehrson, & Olsson (2017)	5	You have to be savvy enough to recognise an opportunity (Mills et al., 2012, p. 1599).

**4.3.3.1.2 Psychological Factors.** In the literature a total of 16 psychological factors were highlighted as being associated with the junior-to-senior transition, which included; determination to succeed/work hard, awareness (self and others), confidence, adaptability, intrinsic motivation, competence/responsibility, athletic identity, good attitude, focus, team-oriented, mental strength/resilience, commitment, complacency, negative thoughts/beliefs about ability, mental preparation, and coachability. A majority of the psychological factors identified were perceived to be positively associated with (i.e. facilitated) the junior-to-senior transition.

*4.3.3.1.2.1 Determination to succeed and work hard:* A total of 18 studies identified determination and work ethic as a crucial psychological resource during the junior-to-senior transition. All of the studies identified a positive association between the determination to succeed and work hard and athletes' transitional experiences (e.g., Bennie, & O'Connor, 2006; Morris, Tod, & Oliver, 2016; Vujic, 2004). Mills et al., (2012) found that a 'never give up' attitude and a willingness to give 100% were qualities that were more likely to lead to an athlete's positive development. Similarly, Bennie and O'Connor (2006) found that athletes who possessed a drive to achieve more in their sport were significantly more likely to transition successfully into senior sport. One coach stated that athletes who possessed certain psychological resources were more likely to be supported through the transition:

"The guys who are most motivated and have a high level of determination to succeed are the ones who are most successful long term. When they are seen to work hard, the manager sees that and is more likely to support them because of that." (Morris, 2013a, p. 84)

*4.3.3.1.2.2 Awareness:* This theme encompasses self-awareness and awareness of others. Mills et al. (2012) highlighted the relationships between awareness and resilience, suggesting athletes who demonstrate self-awareness can reflect on the challenges they

experience and understand what is needed to succeed at a senior level. Pummell (2008a) suggests that self-perception is an evolving attribute that changes over the course of the transition. Athletes' perceptions of themselves, as well as athletes' perceptions of how others view them, vary pre-transition to post-transition. Breaking through to the next level of senior competition was found to increase athletes' perceptions of themselves, and their beliefs of becoming a successful senior athlete. However, Pummell (2008c) found that one of the biggest challenges athletes faced during their transition into senior sport was due to comparing themselves unfavourably to other senior athletes, which ultimately harmed their self-esteem. One athlete said: "I just lost sight a bit of my own kind of journey and felt a bit somehow like meaningless compared to what he [another athlete] was doing, especially in that group environment." (p. 174). Also, research suggests that athletes need to demonstrate an awareness of others and that they are socially competent, which can be particularly important when performing as part of a sports team (Mills et al., 2012). When transitioning into the senior environment, athletes are often required to adapt to social changes and establish new friendships and a wider social network (Pummell et al., 2008). One coach in Mills et al.'s study (2012) believed it was important that transitioning athletes were socially aware of others around them, "The type of player that I find is successful in the modern game is the person who is socially switched on, the one that is able to interact really effectively with everybody." (p. 1599).

*4.3.3.1.2.3 Confidence:* Fourteen studies identified confidence as a psychological factor that was perceived to facilitate the junior-to-senior transition. Athletes' confidence was described as having trust in their ability and possessing the capacity to compete without fear (Mills et al., 2012). Morris et al. (2016) found that confidence was an important factor associated with the transition in football but was also a fragile construct. They found that athletes' perceptions of self-confidence changed throughout the various stages of the

transition, with athletes experiencing an increase in confidence post-transition. Jones et al. (2014) found that both players and coaching staff identified confidence as a personal attribute that can facilitate the transition into senior sport. One coach mentioned “If you can have that belief that you can do it or, even if you didn’t do it the first time...you go and practice that and you’re going to get it eventually” (p. 36).

*4.3.3.1.2.4 Adaptability:* Adaptability refers to the various domains in which a young athlete is required to adapt in certain situations when transitioning from junior-to-senior level (Røynesdal, 2015). Some examples of situations that transitioning athletes may be required to adapt to include, adapting to a new coach and teammates, adapting to a new training environment and facilities, adapting to a step up in training and competition. Athletes looking to experience a successful transition must concentrate all their efforts on adapting to the demands of their new environment (Vujic, 2004). In total, eleven studies highlighted a positive association between athletes possessing the ability to adapt to new demands and challenging situations and the quality of their transition. Røynesdal (2015) explored the transition from academy to professional football and found that adaptability was an important factor that influenced their progression through the transition. Their study illustrated the need for athletes to be ready to adapt to many situations throughout the transition into the senior team. Players were required to adapt to the managers’ philosophy, the style and speed of play in the first team and must also be able to adapt to any circumstances within the senior environment. One coach expressed the need to be able to adapt to managers’ requirements:

They can go up there with a certain set of qualities, and they earn the credibility and the trust of the players and the staff. I think it’s then being adaptable to what the manager wants because that is what’s going to get you selected in the team (p. 14)

*4.3.3.1.2.5 Intrinsic motivation:* Intrinsic motivation refers to when individuals’ behaviours are motivated by internal factors (e.g., a love of the sport). Eleven studies

perceived intrinsic motivation as facilitative to athletes' transition outcomes. Bennie and O'Connor (2006) found that intrinsically motivated athletes who enjoyed training and competing, as well as socialising with their sports peers, were more likely to transition into senior sport successfully. Similarly, Jones et al. (2014) found that athletes who expressed an intrinsic motivation to continue participation at an elite level were more likely to be successful in negotiating the transition than athletes who were motivated by external components such as financial rewards. One athlete in the study spoke about their intrinsic motivation: "It was the footy development that came with being part of a group that you wanted to be part of and where you wanted to do well...that enjoyment made me want to learn and become a better footballer." (p. 18). Similarly, Pummell et al., (2008) found several athletes in their study demonstrated a strong intrinsic motivation and described having love and enjoyment for their sport. Morris et al. (2016) emphasised the importance of motivation both pre and post-transition, with one player stating:

Football is my life, and I can't imagine not moving up to the first-team squad and being successful. I have to do it; because football makes me happy and this is the one thing I have always wanted to do (p.12).

*4.3.3.1.2.6 Competence and responsibility:* Athletes' abilities to take responsibility for the situation and demonstrate competence during their transition processes were identified as having a positive influence on the transition outcome. During the junior-to-senior transition, Pummell (2008a) found that athletes were required and expected to become more independent and to take charge of their careers. Athletes identified experiencing a significant change in lifestyle when moving into senior sport (e.g., travelling alone to competitions, long periods away from home). One athlete commented on this, stating:

Obviously, the travelling is a big thing because when you're a junior you, you travel with a team. The only time I ever really went away - apart from a couple of

tournaments, I was either with my parents or with coaches and the team, whereas, then you, [in seniors] obviously, you start travelling on your own... flying off to different places on your own (p. 80).

Stambulova et al. (2016) found that athletes took more responsibility within the team during their second and third year of the transition into the senior squad to effectively cope with the associated demands.

*4.3.3.1.2.7 Athletic identity:* Athletic identity is defined as "the degree to which an individual identifies with the athlete role" (Brewer, Van Raalte, & Linder, 1993, p. 237). Eight studies included in the meta-study identified athletic identity to be related to the quality of athletes' junior-to-senior transitions. During the transition period, athletes will start to invest more time into their sport and are likely to develop their athletic identity (Morris, 2013; Hollings, 2014). Franck et al. (2018) found that a strong athletic identity was a crucial factor in making a successful transition into senior sport. However, they went on to state that athletic identity can become a barrier in the future (e.g., retirement), and it is important to educate athletes and coaches on the role of athletic identity. Similarly, Hollings (2014) argued that during the transition phase, it is important for athletes to maintain a balanced level of athletic identity and should be encouraged to explore other life-roles to prevent identity foreclosure.

In their study, Jones, Mahoney, and Gucciardi (2014) reported that coaching staff had expressed that they felt their players needed to develop a balanced identity. One player welfare manager highlighted the importance of developing multiple identities:

Broadening a person's identity, which is about the self-esteem thing. It becomes clear that if you engage in something else, if you're a good family person, if you're a church person, or whatever it be...you've got to have a bit of an outlet that takes you away from that single focused desire because it actually helps that desire. (p. 17)

*4.3.3.1.2.8 Good attitude:* In total, eight studies identified having a good attitude as an important factor during athletes' transition into senior sport. Jones et al. (2014) stated that in order for athletes to succeed at a senior level, they must possess psychological resources including, a good attitude, character, and personality. Mills et al. (2012) found that possessing an optimistic and professional attitude were perceived to facilitate athletes' progression into elite senior sport. Stambulova et al. (2016) found that having the right attitude was a crucial factor in being able to make the step up into senior sport, with one athlete explaining "it's about attitude. For example, you can't be the last one to arrive and the first one to leave. You should be the first to arrive at practices and the last one to leave" (p. 13).

*4.3.3.1.2.9 Focus:* Seven studies highlighted that athletes' ability to remain focussed on their sport was an important factor in the junior-to-senior transition. Morris (2013a) identified a loss of focus as an external barrier to athlete's junior-to-senior transition. Athletes described losing focus of their current situation, and not understanding what was required of them to improve their weaknesses. By losing focus, athletes failed to improve their physical and technical deficiencies, which negatively influenced their long-term development. Mills et al. (2012) concur that the ability to remain focused and block out distractions can be a psychological resource that may positively influence athletes' development. One coach in the study stated, "The ability to shut out things external to the programme is vitally important" (p. 1598).

*4.3.3.1.2.10 Team-oriented:* Amongst other research included in the review, Mills et al. (2012) found that being team-oriented and demonstrating a willingness to be a team player could facilitate the junior-to-senior transition, particularly in team sports. One football coach highlighted that despite competing with other players to make the senior team, athletes need to be aware that being a team player and developing a strong team cohesion can improve an

athlete's overall chances to make a successful transition into the first team. In one particular study, several coaches noted the importance of fitting into the first team environment when moving up from academy football (Røynesdal, 2015). One coach stated:

...you then [need] to become part of the team and you feel like you're working toward a common aim because if you're going to be successful you need a good team spirit and togetherness, so despite the cultures you have to find a way of being together (p. 25).

*4.3.3.1.2.11 Mental strength/resilience:* Fletcher and Sarkar (2012) defined resilience as "the role of mental processes and behaviour in promoting personal assets and protecting an individual from the potential negative effect of stressors" (p. 675). Athletes who demonstrate a mental strength or resilient attitude possess the ability to overcome personal and contextual obstacles within their sport and this has been identified as an important attribute in athletes' development (Gould, Dieffenbach, & Moffett, 2002; Holt & Dunn, 2004). The current meta-study found a total of seven studies which identified mental strength/resilience as having a positive relationship to athletes' transitions from junior-to-senior sport. Vujic (2004) found that athletes who experienced successful transitions demonstrated a stubbornness and an "iron will" to succeed. Røynesdal (2015) described that football players needed to demonstrate survival strength and resilience to cope with the demands of the transition. Players were particularly required to show their resilience during setbacks (e.g., being dropped from the first team to the under-21s team).

*4.3.3.1.2.12 Commitment:* Pummell et al. (2008) found that athletes who transitioned successfully demonstrated high levels of commitment to their sport, with a strong desire to make the transition. Athletes expressed their commitment by describing their sport as "my whole life" (p. 435). Also, Morris (2013) found that a lack of commitment was an internal barrier that can harm players' development. A lack of commitment may mean that athletes do

not fully commit to the hard work and dedication required to become a successful senior athlete. Bennie and O'Connor (2006) found that athletes who dropped out from senior sport experienced a decline in motivation and commitment to training due to being physically and mentally burnt out. 'It made me tired and it took up too much of my time, so I got fed up with that. As a result, my commitment to athletics was reduced because I became physically and mentally burnt out' (p. 64). Similarly, one athlete felt they were not able to commit the necessary time to be a successful senior athlete while balancing other areas of their life. "I could go football training twice a week pay in a game and go out with the boys, but that was still nowhere near the commitment needed to be a high-class runner (p.64)".

*4.3.3.1.2.13 Mental preparation:* The current review identified four studies that supported the notion that athletes' mental preparation for the transition was an important factor in the transition process. Olsson and Pehrson (2014) identified that one of the biggest barriers to the transition was athletes who were not mentally prepared for the challenges of training or mentally prepared to spend time on the substitutes bench. However, mentally prepared athletes were able to use this as an effective coping strategy when dealing with the demands of senior sport. Morris (2013b) suggested that a lack of mental preparation and knowledge of the junior-to-senior transition was found to be one of the biggest barriers influencing the outcome of the transition. One sport psychologist said:

...if they don't prepare themselves mentally, they suffer the consequences when they do move up as they become overawed and some of them panic. So, they need to sit themselves down and speak to boys who have been through it, speak to us [sport psychologists] and get an understanding of what they are about to face. If they don't have that preparation, it is definitely a barrier (p. 121).

*4.3.3.1.2.14 Coachability:* Two studies identified coachability as potentially facilitating the junior-to-senior transition. Jones et al. (2014) interviewed coaches and found

that coachability was a positive resource for athletes. Coachable athletes were described as willing and able to learn new skills, absorb information, take feedback, and be prepared to keep working hard. Mills et al. (2012) suggested coachability refers to an athletes' ability to assimilate information, possessing a hunger to learn, and demonstrating consistency in their performance. Mills et al. (2012) identified coachability as a sport-related characteristic that could facilitate the transition into senior sport.

Although certain psychological factors are highlighted as positive and having the potential to facilitate the junior-to-senior transition, others, including athlete complacency and negative thoughts and beliefs about their own ability were individual factors that were perceived to have a debilitating effect on transition outcomes (Bennie, & O'Connor, 2004; Čačija, 2007; Franck, & Stambulova, 2018a; Jones et al., 2014; Morris, 2013a; Olsson, & Pehrson, 2014; Røynesdal, 2015; Stambulova et al., 2017).

*4.3.3.1.2.15 Complacency:* Five studies identified becoming complacent as a debilitating factor in the junior-to-senior transition process. Athletes who were complacent were less committed to their sport and were not willing to put in as much hard work required to succeed at a senior level (Morris, 2013a). Feelings of complacency may be due to a poor understanding of what to expect when transitioning from junior-to-senior sport (Jones et al., 2013). The uncertainty can be caused by athletes not understanding their role within their team, expectations of behaviours, and even new club cultures. This uncertainty can then cause athletes to become complacent while also reducing their physical and psychological readiness to transition.

*4.3.3.1.2.16 Negative thoughts/beliefs about ability:* Finally, five studies identified that athletes' experiencing negative thoughts and beliefs about their ability was an individual factor that could hinder their progression during the junior-to-senior transition. Alge (2008) found several athletes that expressed negative thoughts about their abilities, lowered self-

esteem, feeling inadequate compared to other athletes, doubting their performance, and perceiving others to be much more advanced. Similarly, Bennie and O'Connor (2006) found that athletes who failed to make the transition had little or no self-belief in their ability to make the move into senior sport. Athletes described having too many negative thoughts, not feeling good about themselves, and pulling themselves down (Olsson & Pehrson, 2014). Čačija (2007) found that athletes experienced negative thoughts when the results were not as good as they had hoped. One athlete in the study stated “When you start performing worse you get these negative thoughts. You think you are worse than you really are. It becomes a downward spiral.” (p. 11).

**4.3.3.1.3 Personal Development.** Personal development refers to athletes' desire for growth and improvement. The review identified four personal development factors as variables of transition including: (a) achieving a life balance, (b) developing sport-specific knowledge, (c) focus on personal growth and development, and (d) making the most of opportunities. Collectively, these elements are considered positive to athletes' development and may support their transition to senior sport (Olsson & Pehrson, 2014; Pummell, 2008c; Pummell & Lavalley, 2019; Røynesdal, 2015).

**4.3.3.1.3.1 Achieving a life balance:** Twelve studies in the current meta-study identified achieving a life balance as an important factor that could facilitate the junior-to-senior transition. In order for athletes to experience a successful transition, research suggests it is crucial for athletes to achieve a positive balance between all the components in their lives, such as sport, work, education, and relationships (Hollings, 2014; Jones et al., 2014). Athletes described the need for a balance between managing training with work, managing free-time by having something outside of sport, as well as having a balanced mindset. Bennie and O'Connor (2006) found that athletes can maintain multiple identities during the transition

process and achieve a positive life balance. Athletes who continued participation in senior sport were able to organise their education, work, and training commitments effectively.

*4.3.3.1.3.2 Developing sport-specific knowledge:* Developing sport-specific knowledge refers to athletes' desires to enhance their comprehension and understanding of key factors which may influence their sporting career, including key tactics and or skills. Such knowledge can ensure that athletes are aware of and able to use key skills as and when they do move to senior sport (Morris, 2013a; Morris et al., 2016). Morris (2013c) highlighted that during the orientation phase, athletes were required to develop their knowledge of their role within the team and learn how to behave appropriately in their new context. One player spoke about how they believed they had developed their sports knowledge:

I also believe that I have good knowledge and understanding of the type of player I am and the role that I need to play, which I think helps me because I understand when the coach tells me something what he means (p.157).

*4.3.3.1.3.3 Focus on personal growth and development:* Sport not only offers young athletes an opportunity to develop their sporting prowess but also the platform to build and develop their skills in other areas of their lives (Mayocchi & Hanrahan, 2000). In one study, coaching staff believed athletes must be prepared to develop and grow as a person and not only as an athlete (Jones et al., 2014). Athletes in the study explained that transitioning into senior sport promoted personal growth, both inside and outside of sport. Examples of personal development included: becoming more mature, developing independence, taking responsibility or ownership for behaviours, self-awareness, and constantly seeking improvement and progression. Bruner et al. (2008) reported similar findings, despite athletes finding the transition challenging, they still believed they were developing and maturing as a person.

*4.3.3.1.3.4 Making the most of opportunities:* The final lower-order theme referred to athletes needing to make the most of the opportunities that was provided by the transition. Opportunities represent situations or events where the outcome can be either positive or negative but can influence the players' development (e.g., getting an opportunity due to competitor injuries, performing well when a senior team scout is present). Five studies suggested athletes who were prepared when an opportunity presented itself (e.g., an opening in the first team), were more likely to have positive transitional experiences (Mills et al., 2012). Olsson and Pehrson (2014) highlighted during the preparation phase of the transition athletes needed to take advantage of the opportunities they were given when moving up to senior status, with athletes stating they needed to "dare to take the chance" (p. 18).

**4.3.3.2 External Factors.** External factors influencing the junior-to-senior transition include performance development factors, social support available, extrinsic motivation provided, sources of stress athletes encounter, and physical demands they experience (see table 4.3).

*4.3.3.2.1 Performance Development Factors.* Performance development factors were perceived to be both facilitative and debilitative towards transition outcomes. Performance factors included (a) readiness for next level of competition, (b) performance progression, (c) technical proficiency, (d) evaluation of performance, (e) early success in the transition phase, and (f) earning playing time.

*4.3.3.2.1.1 Readiness for the next level of competition:* Fifteen studies suggest that athletes' perceptions of their readiness for next the level of competition was an important factor in the junior-to-senior transition. Readiness for the next level of competition refers to athletes' beliefs about how prepared they are to make the step-up into senior competition. Bruner et al. (2008) found that athletes beliefs about their readiness to transition came from their experiences at previous competitions. Athletes who had experienced elite competitions

before moving up to senior sport felt they were more prepared for the transition than those who had competed at a lower level. Pummell (2008b) found that athletes who perceived themselves to be ready for the junior-to-senior transition experienced a smoother transition than athletes who demonstrated lower levels of readiness. Also, some of those athletes who did not feel adequately ready to transition often experienced a delay in their progression at a senior level.

*4.3.3.2.1.2 Performance progression:* Eleven studies highlighted that athletes who focus on achieving a positive performance and personal progression were more likely to have positive transitional experiences. Key stakeholders identified that athletes who possess the ability to strategically think about progressing their performance and not focus on other athletes were more likely to experience a positive transitional outcome (Morris et al., 2016). Olsson and Pehrson (2014) found that athletes who were going through the adaptation phase of the transition highlighted that achieving consistency in their performance level was one of the most important outcomes during that stage. Jones et al. (2014) stated that players believed it was necessary to make a gradual, step-by-step progression through the varying levels of senior competition. Hollings (2014b) argued that the unpredictability of athletes' performance progression can, however, be a transition barrier and can cause athletes to feel uncertain about their future in the sport. Progression is measured in terms of hitting certain targets, and a failure to do so can often mean a cut or loss of funding and exclusion from performance programmes. Hollings argued that there needs to be effective systems in place that can be used to guide junior athletes on the potential progressions they can expect to experience when moving into elite senior sport.

*4.3.3.2.1.3 Performance progression:* Eleven studies highlighted that athletes who focus on achieving a positive performance and personal progression were more likely to have positive transitional experiences. Key stakeholders identified that athletes who possess the

Table 4.3  
*External Factors Associated with the Junior-to-Senior Transition*

Theme	Factors	Studies	N
<b>Performance Development</b>	Readiness for the next level of competition	Alge (2008); Bruner, Munroe-Chandler, & Spink (2008); Franck, & Stambulova (2018a); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Eubank (2017); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	15  I think sometimes I might have been a bit early in playing some of the tournaments because obviously out there I got hammered all of the time, whereas if I'd have maybe left it for another year or so and gone on and played some junior events (Pummell, 2008a, p.82)
	Performance progression	Alge (2008); Bennie & O'Connor (2006); Hollings (2014a); Hollings (2014b); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2016); Olsson, & Pehrson (2014); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019)	11  I think that I have become more stable in my performance over the years through my experiences (Stambulova, Pehrson, & Olsson, 2017, p.238)
	Technical proficiency	Čačija (2007); Franck, & Stambulova (2018a); Mills, Butt, Maynard, & Harwood (2012); Morris (2013a); Morris (2013b); Morris (2013b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Røynesdal (2015)	9  Sometimes, they are just not good enough technically and it shows when they move up (Morris, 2013a, p.89)
	Evaluation of performance	Bruner, Munroe-Chandler, & Spink (2008); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Oliver (2016); Pummell, & Lavallee (2019)	4  Reflect[ion] upon their mistakes and getting feedback on performance from coaches and fellow players (Morris, Tod, & Oliver, 2016, p. 384)

	Early success in the transition phase	Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Hollings (2014a); Hollings (2014b)	4	World Junior (position) to Commonwealth ... medallist, to am I going to the Olympics? Is that what's happening now?' (Hollings, Mallett, & Hume, 2014, p. 463)
	Earning playing time	Bruner, Munroe-Chandler, & Spink (2008); Čačija (2007); Stambulova, Pehrson, & Olsson (2017)	3	I want to move up in the line-up . . . instead of playing fourth line try to move up to third line to get a little more ice time (Bruner, Munroe-Chandler, & Spink, 2008, p.244)
	<b>Stakeholder</b>			
	Family Support	Alge (2008); Bennie & O'Connor (2006); Bruner, Munroe-Chandler, & Spink (2008); Čačija (2007); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Hollings (2014b); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2015); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008b); Pummell, Harwood, & Lavalley (2008); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	21	Without the parents it would never had worked (Alge, 2008, p. 16)
<b>Support</b>	Coach Support	Alge (2008); Bennie & O'Connor (2006); Bruner, Munroe-Chandler, & Spink (2008); Čačija (2007); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a);	19	[When] they [the coaches] are criticizing you then you feel like they hate me. I suck out there. But they say they are doing it to make you a better player. It [constructive criticism] is hard to see at that time

	Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Pummell (2008c); Pummell, Harwood, & Lavallee (2008); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)		(Bruner, Munroe-Chandler, & Spink, 2008, p.245)
Teammates/Training Partners	Bennie & O'Connor (2006); Bruner, Munroe-Chandler, & Spink (2008); Čačija (2007); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008a); Stambulova, Pehrson, & Olsson (2017)	14	The captain has really helped, especially when I make mistakes, he takes me aside and offers alternatives or ways I could improve (Morris, Tod, & Eubank, 2017, p. 18).
Peer support	Alge (2008); Čačija (2007); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Vujic (2004)	11	Having friends and family to support them away from the sport environment can have a massive positive effect on those moving up to senior sport (Morris, Tod, and Eubank, 2017, p.17)
Sport Science Staff	Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2015); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Pummell (2008c)	9	The physio and sport science guys are a big help. The physio in particular helps, because when we go for a massage, we talk to him about things like how we are feeling as well (Morris, Tod, & Oliver, 2016 p. 19).
Organisational Support	Alge (2008); Čačija (2007); Franck, & Stambulova (2018a); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2015); Olsson, &	8	My head-teacher, she just always wants to know what I've done this weekend and

	Pehrson (2014); Pummell, Harwood, & Lavallee (2008); Vujic (2004)		they want to publish it around school” (Pummell et al., 2008, p. 440)
Partner	Čačija (2007); Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	6	Having key people on your side that actually care about you (Jones, Mahoney, & Gucciardi, 2014, p. 34).
Managers	Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a)	3	I have started using much more support from the gaffer, and all the people at the club, and my parents have taken a back seat (Morris, 2013, p.157)
<b>Type of Support</b>			
Financial support	Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018a); Hollings (2014b); Morris, Tod, & Eubank (2017); Morris (2013b); Pummell, Harwood, & Lavallee (2008); Pummell, & Lavallee (2019)	8	My parents are so supportive. Dad just breaks his back working and stuff to pay for me to do my running (Hollings, 2014b, p.102)
Emotional	Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Pummell (2008c); Pummell, Harwood, & Lavallee (2008)	7	My parents have really helped me, just being there for me whenever I have had a rough day or the likes, you know? (Morris, Tod, & Eubank, 2017, p. 18).
Technical/informational	Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Pummell, Harwood, & Lavallee (2008)	6	the captain has really helped, especially when I make mistakes, he takes me aside and offers alternatives or ways I could improve (Morris, Tod, & Eubank, 2017, p.18)
Tangible	Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Pummell, Harwood, & Lavallee (2008)	5	Without the parents doing a lot of running around after them, they wouldn't be able to get places, and the petrol prices aren't

			cheap, so they deserve a lot of credit (Morris, 2013, p.88)
	Esteem	Morris, Tod, & Oliver (2016); Pummell, Harwood, & Lavalley (2008)	2 Being confident in your own ability when moving to senior sport is crucial so anyone who can, should keep telling the players they have the ability to move up to keep their confidence boosted (Morris, Tod, Oliver, 2016, p. 385)
<b>Motivation</b>	Changes in priorities	Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Hollings (2014a); Hollings (2014b); Morris, Tod, & Eubank (2017); Pummell, Harwood, & Lavalley (2008); Vujic (2004)	9 You had to make a choice, either go out that Friday or go to the gym and lift some weights (Čačija, 2007, p.9)
	Extrinsic motivation	Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Eubank (2017); Morris, Tod, & Oliver (2016); Pummell, Harwood, & Lavalley (2008)	6 We will get more money in when we move up, wont we . . . that ability to be able to afford things is important to me, as I want to be able to support my family.” (Morris, Tod, & Eubank, 2017, p.13).
<b>Sources of Stress</b>	Substantial increase in standard between junior and senior	Alge (2008); Bennie & O'Connor (2006); Čačija (2007); Franck, & Stambulova (2018b); Hollings (2014a); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008a); Pummell, Harwood, & Lavalley (2008); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017)	14 All the qualifying standards are a bit of a joke, they're pretty hard. Open standards are too hard and they're not retaining athletes as a result, so the standards have to be brought back (Bennie & O'Connor, 2006, p. 63).
	Coach-athlete relationship/conflict	Bennie & O'Connor (2006); Bruner, Munroe-Chandler, & Spink (2008); Čačija (2007); Finn & McKenna (2010); Franck, & Stambulova (2018a); Franck, & Stambulova (2018b); Hollings (2014a); Hollings (2014b); Lorenzo, Borrás, Sánchez,	12 I'm pretty bitter towards the coaches . . . sometimes you want the coaches to show a little bit of confidence in you, if you don't have as much

	Jiménez, & Sampedro (2009); Olsson, & Pehrson (2014); Røynesdal (2015); Vujic (2004)		confidence in yourself (Bruner, Munroe-Chandler, & Spink, 2008, p.245)
Significant others	Alge (2008); Čačija (2007); Finn & McKenna (2010); Morris, Tod, & Eubank (2017); Morris (2013a); Morris (2013b); Morris (2013c); Morris, Tod, & Oliver (2015); Pummell, Harwood, & Lavallee (2008); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	12	My friends always want me to go for nights out, or spend time with them, and that's difficult to deal with 'cause you do want to spend time with them, but also you want to win!" (Morris, Tod & Eubank, 2017, p.16)
Inadequate social support	Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Hollings (2014a); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2015); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013b); Olsson, & Pehrson (2014); Pummell, Harwood, & Lavallee (2008)	11	Sometimes the players are looking for support from coaches, and sport scientists, but they don't get it, with some coaches instead shouting at the boys (Morris, 2013, p.89)
Times pressures	Alge (2008); Bennie & O'Connor (2006); Čačija (2007); Finn & McKenna (2010); Hollings (2014a); Hollings (2014b); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Olsson, & Pehrson (2014); Pummell, Harwood, & Lavallee (2008); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	11	Not much time for other things, not everyone understands how much time this takes, 365 days per year, seven days a week, it feels naturally, that's how it is when you work with horses (Alge, 2008, p.20)
Increase in pressure to perform	Čačija (2007); Finn & McKenna (2010); Franck, & Stambulova (2018a); Morris, Tod, & Eubank (2017); Morris (2013b); Morris (2013c); Morris (2013c); Pummell (2008a); Pummell, Harwood, & Lavallee (2008); Røynesdal (2015)	10	I think there is a perception from families that if their son makes it, their [the families] whole life is made for them ... but it hardly ever works like that, and it just results in the player getting [swear word] with their family and thinking they put too much pressure on them. (Morris, 2013, p.82)

	Setbacks/injuries	Alge (2008); Bennie & O'Connor (2006); Franck, & Stambulova (2018a); Hollings (2014a); Jones, Mahoney, & Gucciardi (2014); Olsson, & Pehrson (2014); Pummell (2008a); Pummell, & Lavallee (2019); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	10	There was so much pain and I just seemed to be getting injured and I wasn't able to enjoy other activities (Bennie & O'Connor, 2006, p.64)
	Financial demands	Alge (2008); Bennie & O'Connor (2006); Finn & McKenna (2010); Franck, & Stambulova (2018a); Morris (2013a); Morris (2013b); Olsson, & Pehrson (2014); Pummell (2008a); Pummell, Harwood, & Lavallee (2008)	9	There were increasing monetary cost associated with coach and that was a big influence on me not competing at all. I mean... being a student I can't afford much. I didn't have much money and I felt I couldn't sponge off my parents any longer (Bennie & O'Connor, 2006, p.65)
	Organisational stressors	Bruner, Munroe-Chandler, & Spink (2008); Franck, & Stambulova (2018a); Morris, Tod, & Eubank (2017); Pummell, Harwood, & Lavallee (2008)	4	There's no doubt we get criticized more in the first team (Morris, Tod, Eubank, 2016, p.17)
	Lack of motivation	Franck, & Stambulova (2018b); Olsson, & Pehrson (2014); Stambulova, Pehrson, & Olsson (2017)	3	It's easy to lose motivation because it's not as easy anymore (Stambulova, Pehrson, & Olsson, 2017, p. 239)
	Greater physical/training demands	Čačija (2007); Finn & McKenna (2010); Jones, Mahoney, & Gucciardi (2014); Lorenzo, Borrás, Sánchez, Jiménez, & Sampedro (2009); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Olsson, & Pehrson (2014); Pummell (2008b); Røynesdal (2015); Stambulova, Pehrson, & Olsson (2017); Vujic (2004)	13	I have really struggled recently to keep up with the boys, 'cause the sessions are much longer and more physical which has really hindered how well I play (Morris, 2013, p.143)

ability to strategically think about progressing their performance and not focus on other athletes were more likely to experience a positive transitional outcome (Morris et al., 2016). Olsson and Pehrson (2014) found that athletes who were going through the adaptation phase of the transition highlighted that achieving consistency in their performance level was one of the most important outcomes during that stage. Jones et al. (2014) stated that players believed it was necessary to make a gradual, step-by-step progression through the varying levels of senior competition. Hollings (2014b) argued that the unpredictability of athletes' performance progression can, however, be a transition barrier and can cause athletes to feel uncertain about their future in the sport. Progression is measured in terms of hitting certain targets, and a failure to do so can often mean a cut or loss of funding and exclusion from performance programmes. Hollings argued that there needs to be effective systems in place that can be used to guide junior athletes on the potential progressions they can expect to experience when moving into elite senior sport.

*4.3.3.2.1.4 Technical proficiency:* Athletes technical skill level is a sport-related change that occurs over the transitional period and requires the athletes to become increasingly proficient across a range of sport-specific skills (Pummell et al., 2008). Athletes who possess high levels of technical skills can utilise this to assist them during the transition into senior sport (Morris, 2013a). Morris (2013a) interviewed elite football coaches, who suggested that there was an increase in technical standard from the youth team to the senior team. This increase in standard and skill meant more frequent punishment of mistakes made by transitioning players. A lack of technical skills and knowledge of the sport were barriers that would influence an athletes' transition into the senior team.

*4.3.3.2.1.5 Evaluation of performance:* The current meta-study found four studies which identified that the ability to reflect on and evaluate personal performances had the potential to assist athletes during the junior-to-senior transition. Morris et al. (2016) found

athletes who were negotiating the transition needed to have the capacity to reflect on poor performances and learn from setbacks. Coaches in the study perceived that athletes were likely to become more successful senior athletes if they were able to reflect on and evaluate their own performance. Athletes engaged in the evaluation of their performance to develop a knowledge of their physical attributes, understand the level of the current players in the senior team and identify what is required of them to reach the same level. This strategy helped athletes to identify their weaknesses, areas for improvement, and self-regulate more effectively.

*4.3.3.2.1.6 Early success in a transition phase:* Four studies suggested that athletes were more likely to experience a successful transition if they experience successful performances early on in the transition phase (e.g., Hollings, 2014a). All studies described a positive association between achieving early success and the quality of the junior-to-senior transition (Bennie & O'Connor, 2006; Franck & Stambulova, 2018a; Hollings, 2014a; Hollings 2014b). Experiencing early success in the transition period was found to be an important source of confidence for transitioning athletes. Bennie and O'Connor (2006) found that athletes who successfully achieved pre-determined goals during the initial stages of their transition were more likely to continue participating in their sport. Also, Hollings (2014) reported that athletes who competed at the World Junior Championships and went on to achieve senior success or international representation within 2 or 3 years of the World Junior Championships, remained at an international level for up to 10 years. The author concluded that the initial success athletes experienced during the transition contributed to their prolonged and successful careers.

*4.3.3.2.1.7 Earning playing time:* The final performance development factor identified was earning playing time. Bruner et al. (2008) interviewed rookie ice hockey players regarding their experiences of their transition into elite sport. One common theme

that emerged in the research was that athletes were concerned about earning game time. Many of the athletes would set goals around increasing their playing time. Despite this, many athletes became worried and disappointed in the amount competitive action they had at a senior level. Additionally, if athletes are not able to compete with the senior team in the immediate period of moving up to senior sport, they are likely to view the transition as a negative and difficult challenge (Bruner et al., 2008; Čačija, 2007; Stambulova et al., 2017).

**4.3.3.2.2 Social Support.** Social support is an external factor that can be facilitative of the development of athletes during the junior-to-senior transition (Bennie & O'Connor, 2006). Junior athletes who are given positive support and encouragement without excessive pressure to perform are more likely to experience a positive transition into senior sport (Pummell et al., 2008).

**4.3.3.2.2.1 Stakeholders:** Eight providers of support were particularly salient during the transition - (1) family, (2) coaches (3) teammates, (4) peers, (5) sports science staff, (6) organisational support, (7) partners, and (8) managers (e.g., Bruner et al., 2008; Čačija 2007; Franck, & Stambulova, 2018a; Franck, & Stambulova, 2018b; Mills et al., 2012; Olsson, & Pehrson, 2014).

Twenty-one studies perceived family support to influence the quality of athletes' transitions. Athletes families have been identified as having a significant role in providing support, especially during the early stages of the transition (Pummell et al., 2008). Alge (2008) highlighted the role of the family in providing financial and emotional support. Athletes perceived that their parents were a positive source of support during the transition when they were calm and supportive during competitions and did not put too much pressure on them to perform.

Also, nineteen studies identified the coach as a principal agent in providing support for transitioning athletes. Social support and trust from the coach were identified as external

facilitators, assisting athletes during the junior-to-senior transition (Alge, 2008; Pummell, 2008; Morris et al., 2016; Vujic, 2004). Coaches were seen as particularly significant during the orientation and adaptation phases of the transition (Stambulova et al., 2016).

Lorenzo et al. (2009) emphasised the importance of friends as a significant resource for athletes to utilise during the transition period. Athletes believed peer support, particularly emotional and tangible support, aided their transition into senior sport (Morris et al., 2016). One sport psychologist in the study expressed the need for athletes to be able to access emotional support from their friends away from the sporting environment:

Having friends and family to support them away from the sport environment can have a massive positive effect on those moving up to senior sport. When they move up, more often than not it is difficult for them, so they will be frustrated and angry at the end of the day and having some kind of support and someone to talk to at home will really help that (p. 117).

*4.3.3.2.2 Type of support:* Those providing social support can give emotional, informational, tangible, esteemed, and financial support (Morris et al., 2016; Pummell et al., 2008). Coaches provide informational and esteem support, parents and family usually offer emotional, esteem, and tangible support, and sports science staff often provide technical, informational, and emotional support, although these roles are not exclusive (Morris, 2013a; Morris et al., 2016).

*4.3.3.2.3 Motivation.* Motivation is made up of two lower-order themes; changes in priorities and extrinsic motivation. The two lower-order themes were perceived to have the potential to be both facilitative and debilitative towards transition outcomes.

*4.3.3.2.3.1 Changes in priorities:* Nine studies in the review reported a change in athletes' priorities as they moved from junior-to-senior level. Some athletes who experienced an unsuccessful transition into senior sport expressed that they were not able to cope with the

external challenges associated with the transition, lost motivation, and subsequently felt the need to take a break from the sport and prioritise other areas of their lives (Vujic, 2004).

When transitioning into senior sport athletes felt they had to make more choices about their priorities to cope with the demands of being a senior athlete (e.g., time pressures), this meant athletes might neglect other areas of their lives (e.g., education) or decrease their involvement in their sport (Čačija, 2007).

*4.3.3.2.3.2 Extrinsic Motivation:* Extrinsic motivation has the potential to have both a facilitative and debilitative influence on the transition. Extrinsic motivation refers to doing something because it leads to a separable external outcome or reward (Ryan & Deci, 2000). For example, an athlete might want to perform well in a competition because they fear being punished by their coach. While this might have a positive influence on athletes' performances, the fear of being punished can cause psychological harm to an athlete that could lead to a negative outcome on their mental health and wellbeing. However, on the contrary, several studies found extrinsic rewards, including being recognised as a senior athlete and an increase in wages when moving up to senior sport motivated athletes to transition successfully (Jones et al., 2014; Morris et al., 2017).

*4.3.3.2.4 Sources of Stress.* Across the literature, 10 sources of stress, which can have a negative influence on athletes' development and transition to senior sport, were identified: (a) a substantial increase in standard between junior and senior, (b) coach-athlete relationship/conflict, (c) significant others, (d) inadequate social support, (e) time pressures, (f) increased pressure to perform, (g) setbacks/injuries, (h) financial demands, (i) organisational stressors, and (j) lack of motivation.

*4.3.3.2.4.1 Substantial increase in standard between junior and senior:* Several studies referred to perceptions of a substantial increase in standards between junior and senior competition (e.g., Bennie & O'Connor, 2004; Čačija, 2007; Franck & Stambulova, 2018b;

Hollings 2014a). This increase in standard can cause athletes to experience a decrease in confidence and belief in their ability to transition from junior-to-senior level because the gap in performance standards is too large (Bennie & O'Connor, 2006). Hollings (2014) found that those athletes who failed to transition believed that the step up to senior sport was challenging, with qualifying standards and performance expectations being too high.

*4.3.3.2.4.2 Coach-athlete relationship/conflict:* Conflict within the coach-athlete relationship was a source of stress for transitioning athletes. Examples of coach-athlete conflicts include poor relationships with a new coach, a change in coaching set-up, and a lack of trust between the athlete and coach (Franck, & Stambulova, 2018a). In Bruner et al.'s (2008) study, one athlete expressed difficulty in receiving criticism from their new senior coaches, stating that they felt it was excessively negative and critical:

[When] they [the coaches] are criticizing you then you feel like they hate me. I suck out there. But they say they are doing it to make you a better player. It [constructive criticism] is hard to see at that time (p. 245).

*4.3.3.2.4.3 Significant others:* Several significant others were seen as a source of stress for athletes, often because they put additional pressure on them to be successful. This pressure can come from all significant others involved in athletes' development, including family, friends, and partners (Pummell et al., 2008). Athletes also described their parents as a source of stress when they became overinvolved in their sport and criticised their performances (Morris et al., 2017).

*4.3.3.2.4.4 Inadequate social support:* Another source of stress that was perceived to have a detrimental effect on the quality of the transition to senior sport was inadequate social support. Research (e.g., Bruner et al., 2008; Morris et al., 2015) has suggested that athletes experience a loss of confidence in their ability, as well as an increase in stress, if they believed they had insufficient social support during the transition process (Bruner et al.,

2008). Pummell et al. (2008b) highlighted that some athletes believed the transition into senior sport had a negative influence on their social life and restricted their ability to socialise outside of their sport. Athletes who have a lack of friends and feel isolated may find this has a negative influence on their health, wellbeing, and performance, mainly because they do not have anyone to confide in when they are experiencing performance challenges (Morris, 2013c).

*4.3.3.2.4.5 Times pressures:* Eleven studies identified time pressures as a potential source of stress for athletes during the various phases of their transition into senior sport. Athletes who were experiencing the junior-to-senior transition were required to manage their sporting and non-sporting commitments and perceived that they were constantly under pressure trying to manage their time effectively (Alge, 2008). Some of the time pressures that athletes identified included having less time for non-sporting activities (e.g., school, friends, work), less time for schoolwork, and difficulties in managing time effectively (Čačija, 2008; Pummell et al., 2008). Interestingly, Finn and McKenna (2010) found that athletes in their first year of a professional contract were likely to experience an increase in free time and financial resources which meant athletes were often bored and may result in athletes engaging in distracting and damaging behaviours during their free time (e.g., alcohol, drugs, and gambling).

*4.3.3.2.4.6 Increase in pressure to perform:* Ten studies in the meta-study suggested an increase in pressure to perform at the senior level was a source of stress during the transition as athletes were constantly required to prove their abilities (Čačija, 2007; Morris, 2013a). One athlete stated, "there are people coming to watch us, paying money, sponsors who sponsor us and they need to get something in return as well" (Olsson, & Pehrson, 2014, p. 24). In one study, coaches emphasised the need for athletes to be able to handle the pressure of the first team which was seen to be a critical component in a players'

development onto the senior stage (Røynesdal, 2015). Some of the pressures that players experienced would come from training sessions, hostile crowds, pressure from the manager, and performance-related pressures of the first-team matches.

*4.3.3.2.4.7 Setbacks/injuries:* Ten studies identified setbacks and injury as a source of stress during the junior-to-senior transition. The transition from junior-to-senior sport is usually a non-linear progression, with athletes experiencing setbacks along their journey (Pummell, 2008a). Injury is not usually the primary cause for withdrawal from sport (e.g., injuries are rarely career-ending); however, it can play a role in an athlete's decision-making to terminate their career (Čačija, 2007). Bennie and O'Connor (2006) found that injury was one of the main factors that influenced athletes' decision to withdraw from participating in sport, leading to an unsuccessful transition. One athlete in the study spoke about their injuries: "there was so much pain and I just seemed to be getting injured and I wasn't able to enjoy other activities". They went on to expressed feeling burnt out: "...it made me tired and it took up too much of my time, so I got fed up with that. As a result, my commitment to athletics was reduced because I became physically and mentally burnt out" (p. 64). Many athletes who failed to make the transition, believed experiencing an injury was a significant setback that prevented them from making the necessary improvements to progress as a senior athlete (Hollings, 2014c).

*4.3.3.2.4.8 Financial demands:* When negotiating the transition into senior sport, athletes can experience a significant financial burden, and without adequate financial support, a successful transition is unlikely (Pummell et al., 2008). Additionally, Morris (2013b) found that financial support may have a complex role in the transition of academy footballers into the first team. The results from their study suggested that athletes can lose focus when they receive a significantly higher wage compared to that of youth football; players may become lazy during training because they are already receiving substantial financial rewards.

However, coaches in the study believed that when players did not receive as much financial support as they had expected, players became distracted with this affecting the players' long-term progress. This study emphasises the complexity of the level of financial support provided during transition - too much or too little financial support could cause athletes to become distracted and lose focus.

*4.3.3.2.4.9 Organisational stressors:* Four studies discussed the influence of organisational stressors on the quality of athletes' transition into senior sport. In one study, athletes reported that sporting organisations were largely supportive, but they experienced organisational stressors in the form of an increase in criticism from management and teammates, compared to their experiences in the junior team (Morris et al., 2016). Pummell et al. (2008) identified numerous institutional issues (e.g., lack of informational support, pushed into transition by organisation, lack of training provision, lack of communication) which was a source of stress for young athletes. Furthermore, athletes in this study, described a lack of support and advice from the sporting organisation during the transition process, and described both educational organisations (e.g., university) as a source of stress as well as sporting organisations (e.g., national governing body). Athletes highlighted that educational institutions did not provide enough support with teachers failing to understand their sporting commitments (Pummell et al., 2008).

*4.3.3.2.4.10 Lack of motivation:* While intrinsic motivation was found to be a resource, a lack of motivation can hinder athletes' transitions into senior sport (Franck, & Stambulova, 2018b; Olsson, & Pehrson, 2014; Stambulova, Pehrson, & Olsson, 2017). Some athletes experienced a loss of motivation if they were not ready or equipped to deal with the challenges (e.g., social demands, time commitment) associated with the transition or had distorted expectations of the transition process (e.g., perceived the transition was going to be easier than it was). For example, one athlete found the change of environment from junior to

senior level challenging, especially when sport at a junior level was fun and had established good relationships within the junior team and the coach. However, after having to try out for the senior team and work with a new coach the athlete lacked motivation to continue and terminated her career.

**4.3.3.2.5 Physical Demands.** Physical demands are a higher-order theme discussed by thirteen studies included in the meta-data analysis. This higher-order theme encompasses the increase in physicality athletes perceived when moving from junior level sport to senior level sport.

**4.3.3.2.5.1 Greater physical/training demands:** Results suggested that there is a substantial increase in the physicality of training when moving from junior-to-senior sport which can negatively influence the transition process. Morris (2013a) found that football players were required to be stronger, faster, fitter, and more powerful to make the step up to first team. Athletes who were transitioning into the senior team identified that there was a substantial increase in physical challenges during training and an increase in playing schedule. These demands were recognised as being particularly challenging for young transitioning athletes who may not be physically or psychologically mature enough to cope with the increase physicality during training and competition (Finn & McKenna, 2010; Jones et al., 2014; Lorenzo et al., 2009; Morris et al., 2016; Røynesdal, 2015; Vujic, 2004).

**4.3.3.3 Cultural Factors.** Cultural factors are a higher-order theme identified in the current meta-study. At the culture and values level, two main factors were identified as being important transition variables - the overall organisational culture and values, and the youth development culture and values (see table 4.4).

Table 4.4  
*Cultural Factors Associated with the Junior-to-Senior Transition*

<b>Organisational Culture and Values</b>	Culture of club/team/sport	Jones, Mahoney, & Gucciardi (2014); Mills, Butt, Maynard, & Harwood (2012); Morris, Tod, & Oliver (2016); Røynesdal (2015)	4	The culture changes, they now need to perform to the best of their ability every day. If they don't, they are out the door. The pressure on them is immense (Morris, Tod, Oliver, 2016, p.381)
<b>Youth Culture and Values</b>	Youth Culture	Finn & McKenna (2010); Olsson, & Pehrson (2014); Stambulova, Pehrson, & Olsson (2017)	3	we have a lot of athletes going to university A, but this university is centred around academic and social; beer, sex, chips and gravy basically. So, we've got a massive conflict with these young lads and lasses who are 18, going into an environment that reinforces these cultural elements (Finn & McKenna, 2010, p.269)

**4.3.3.3.1 Organisational Culture and Values.** Studies (e.g., Jones et al., 2014; Mills et al., 2012; Morris et al., 2016; Røynesdal, 2015) discussed the role of club culture, or the culture of the sport, and its influence on the junior-to-senior transition. If an organisation considers talent development a key component of their organisational culture and values, athletes are more likely to be supported in this regard, meaning they are more likely to experience positive transitions (Morris et al., 2015). Conversely, if athletes are not in this type of environment, they may face the challenges of being in an environment bereft of support for talent development. For example, in such environments, it has been identified that athletes often felt they did not know what to expect with regards to expected behaviours and culture before moving up to senior sport. The level of uncertainty experienced influenced how ready athletes felt to transition (Jones et al., 2014). Consequently, when they move up to senior sport and are faced with a culture which is often challenging for youth athletes, demanding of their skills and competencies, bereft of support, and “tests” their ability to integrate, they can experience the negative effects of this (Morris et al., 2016).

**4.3.3.3.2 Youth Culture and Values.** Youth culture away from sport was perceived to influence the quality of athletes’ transitions negatively. Youth culture refers to problematic behaviour that occurs outside of the sporting environment that can become a

barrier to athletes by preventing them from focusing on their sport (Finn & McKenna, 2010). Particular aspects of youth culture, which were believed to be detrimental to athletes' performances and could harm their focus and physical development, included partying and drinking alcohol. One athlete in Stambulova et al.'s (2017) study highlighted that the youth culture made their adaptation into the senior team more challenging:

A lot of peers are out partying and start drinking, using snuff, smoking, dealing with girls (...). There's a party each weekend but this was not the case for us. We had to abstain and be prepared for practices or games (p. 19).

These results highlight the challenges that may surface should athletes wish to engage in negative youth culture behaviour.

**4.3.3.4 Intervention Strategies.** In addition to the internal, external, and cultural factors identified, research has identified three intervention strategies which could facilitate the transition from junior-to-senior sport - coping strategies, mentoring/modelling, and educational programs (see table 4.5).

Table 4.5  
*Intervention Strategies Associated with the Junior-to-Senior Transition*

<b>Coping strategies</b>	Mental strategies	Alge (2008); Čačija (2007); Finn & McKenna (2010); Hollings (2014b); Jones, Mahoney, & Gucciardi (2014); Morris, Tod, & Oliver (2016); Morris (2013a); Morris (2013b); Morris (2013c); Pummell, & Lavallee (2019); Stambulova, Pehrson, & Olsson (2017); Vujic (2004); Bennie & O'Connor (2006); Bruner, Munroe-Chandler, & Spink (2008); Franck, & Stambulova (2018a); Hollings (2014a); Hollings (2014b); Pummell (2008b); Vujic (2004)	12	I just simply stopped listening to the negative things I was saying to myself. I simply ignored the negative thoughts and tried to think positive to break the downward spiral (Čačija, 2007, p.12)
<b>Mentoring/modelling</b>	Modelling senior athletes	Morris, Tod, & Oliver (2016); Olsson, & Pehrson (2014); Pummell (2008a); Pummell (2008b); Pummell, & Lavallee	6	probably be done to get [athletes] to sit themselves down and speak to boys who

		(2019); Stambulova, Pehrson, & Olsson (2017)		have been through it (Morris, Tod, & Oliver, 2015, p.383)
<b>Educational programmes</b>	Educating athletes on the transition	Hollings (2014b); Morris, Tod, & Oliver (2015); Morris (2013a); Pummell, & Lavallee (2019)	4	[Education programmes were important as] very few players actually are successful in making the transition to the senior team long term (Morris, 2013a, p.91)

**4.3.3.4.1 Coping Strategies.** Coping is defined as “the cognitive and behavioural efforts made to master, tolerate, or reduce external and internal demands and conflicts among them” (Folkman & Lazarus, 1980, p.223). With regards to the junior-to-senior transition, this is the process whereby an athlete draws upon their resources (e.g., blocking out negative thoughts) to manage the demands of the transition period that they are experiencing (Jones et al., 2014). Some examples of coping strategies discussed in the literature include emotional regulation, listening to music, ability to problem solve, and problem-focused coping. One athlete discussed their coping strategy, which was to block out negative thoughts and think positively: "What did I do? I just simply stopped listening to the negative things I was saying to myself. I simply ignored the negative thoughts and tried to think positive to break the downward spiral." (Čačija, 2007, p. 12).

**4.3.3.4.2 Mentoring / Modelling.** The use of mentoring/modelling has also been highlighted as a useful strategy when negotiating the transition from junior-to-senior sport. Junior athletes may learn aspects such as expected behaviours and the fundamental skills and knowledge they will require in senior sport, through observation and modelling during the different phases of the transition (Morris et al., 2016). Pummell and Lavallee (2019) delivered an intervention to support junior tennis players making the transition into senior competition. In this study, mentors/role models were tasked with teaching junior athletes’ relevant skills they may require in senior sport and impart the appropriate knowledge and

guidance on how to behave at a senior level. Athletes who have exposure to a role model or senior mentor are more likely to experience a successful transition because they develop a better understanding of senior team expectations (Bruner et al., 2008).

**4.3.3.4.3 Educational Programs.** Finally, educational programs can be an effective coping strategy that could facilitate the junior-to-senior transition. These programs can be used to educate young athletes on how to cope with the demands of the transition and utilise and develop their coping resources. Educational programs, in addition to athletes, can include critical stakeholders such as coaches, parents, sports science staff, friends, and teammates, where these stakeholders are educated on their role in facilitating athletes through the transition successfully. Hollings (2014b) suggested that it is necessary to educate and prepare coaches to be more effective in meeting the needs of their athlete during the transition process. In Pummell and Lavalley's (2019) intervention highlighted earlier, the authors delivered an intervention to academy tennis players which included educating athletes in several areas including - mental skills, scheduling tournaments, developing independence and responsibility, and performance and lifestyle adjustments. Athletes who took part in the intervention program demonstrated an increase in readiness and knowledge of the junior-to-senior transition.

#### **4.3.4 Meta-Synthesis**

By synthesising the findings of the meta-methods, meta-theory analysis, and meta-data analysis, I present a model of junior-to-senior transition (see Figure 4.2), which I have called the individual, external, cultural model of the junior-to-senior transition. In bringing together the literature associated with the junior-to-senior transition, I provide a model which represents the main findings and can be further tested in future research. The model can also be used as a basis for practitioners working with athletes about to or going through the process. Although individual qualitative studies are often criticised for their homogeneous

and small sample sizes, bringing together the literature associated with many papers in the research area can help to develop a more rigorous understanding of the research area in comparison to one study (Estabrooks, Field, & Morse, 1994). In the current review, I have synthesised the experiences of 261 critical stakeholders involved in, or who are knowledgeable about, the transition. In doing so, I provide a framework based upon a more rigorous understanding of the transition process.

Based upon the meta-synthesis, I propose that there are three underpinning features of the junior-to-senior transition, transition preconditions, transition variables, and transition outcomes. Alongside these, there may (or may not) be interventions which support athletes as they go through the process. I do not propose that the model is stage-based; instead, I suggest that the junior-to-senior transition is a complex and dynamic process which may occur over months or years, with athletes experiencing and being influenced by various variables at different times throughout transition. For example, athletes may be identified as being talented and start training in senior sport - meaning they are influenced by transition variables and are going through the process of moving to senior sport - but then move back down to junior sport because their coaches do not feel they are coping with the process particularly well. This change may lead to an extended transition period, where the variables influencing the transition of athletes becomes dynamic and ever-changing.

**4.3.4.1 Transition Preconditions.** Transition preconditions are key underpinning features required before the transition. Specifically, there is an identification of the athlete as potentially having the opportunity to be successful as a senior athlete or wanting to compete as a senior athlete. This identification varies between sports and can be identification by coaches or other appropriate staff or, in the case of sports such as golf, may be self-identification (i.e., they decide they would like to become professional). It is proposed that athlete identification is the first phase of the junior-to-senior transition (Morris et al., 2015).

Further, in the transition preconditions, there is also identification that appropriate financial, social, and material provision is required before the transition. Again, this will vary between sports but could include aspects such as appropriate financial provision to allow athletes the opportunity to turn professional, appropriate contracts, or access to coaching support (Čačija, 2007; Morris, 2013b). In essence, before moving to senior sport, the provision provided to athletes needs to allow them to focus on moving to senior sport successfully. For example, in professional football or rugby, athletes are never provided with the opportunity to move to senior sport without a contract outlining their sport status as senior athletes, owing to league regulations. Additionally, they often receive extensive support throughout their youth career aimed at developing fundamental skills and competencies they will require as they move to senior sport - this support may include coaching support in a youth academy, for example (Morris, 2013).

**4.3.4.2 Transition Variables.** Once athletes have satisfied transition preconditions, I propose that they move into a situation where several variables, as identified in the meta-data analysis above, influence their transition experience. Specifically, I propose that the individual and their key characteristics, external factors, and the culture and values of the organisation may influence athletes' experiences. The variables can be either facilitative (left-hand side of variables diagram), debilitative (right-hand side of the diagram), or neither (in the centre of the diagram). The variables identified as neither can become either facilitative or debilitative in individual contexts dependent on the way these are viewed and approached, as explained below.

At the individual level, personal development is considered facilitative to transition, according to relevant literature. Specifically, achieving a life balance, developing sport-specific knowledge, focus on personal growth, and development and making the most of

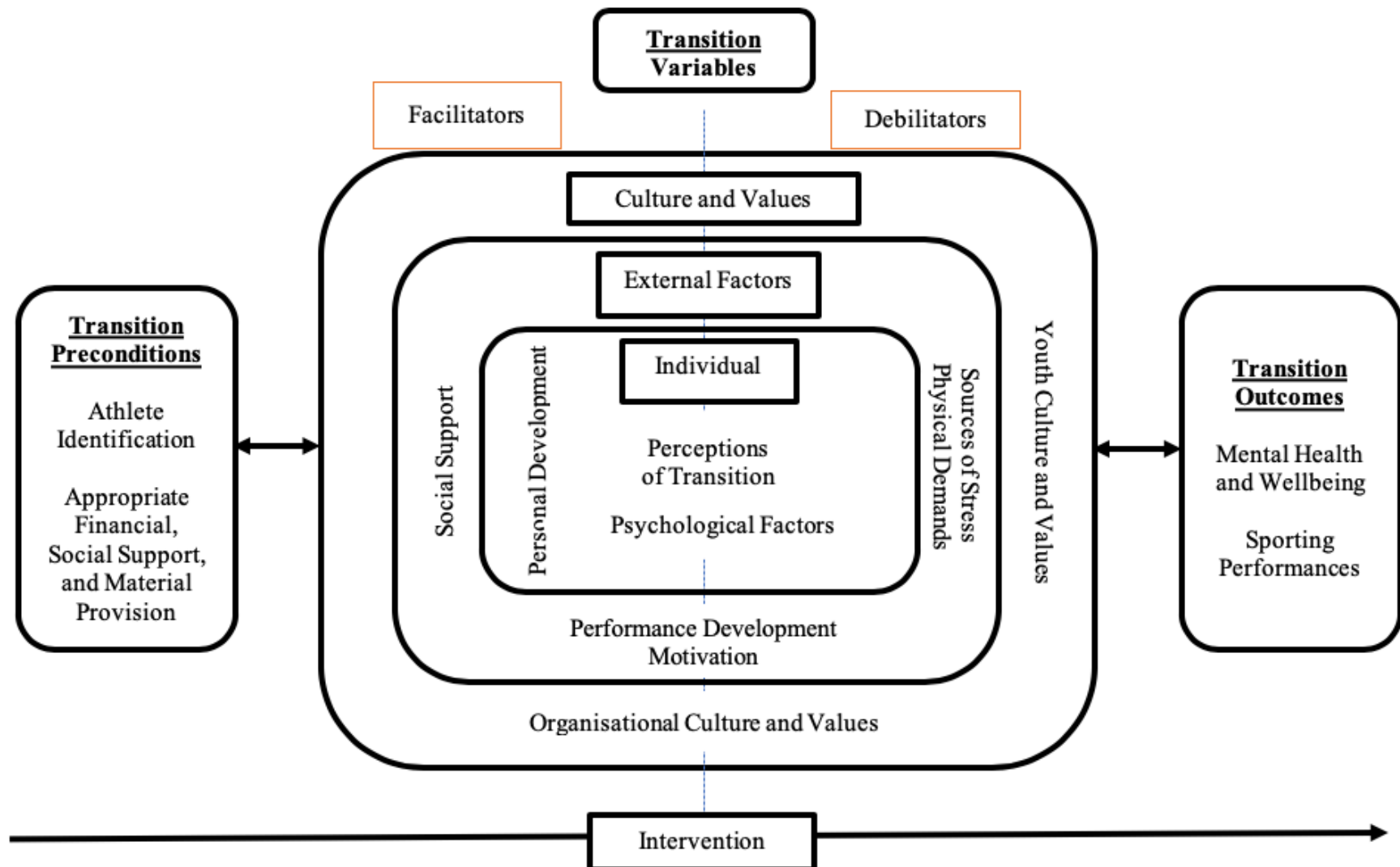


Figure 4.2. The individual, external, cultural model of the junior-to-senior transition

opportunities are personal development factors considered facilitative to transition (Alge, 2008; Jones et al., 2014; Mills et al., 2012; Pummell, 2008a; Stambulova et al., 2017).

Athletes' perceptions of the transition and their key psychological competencies, including for example, intrinsic motivation to be successful and confidence, can be either facilitative or debilitating to athletes' transitions. If athletes have an accurate perception of the transition process, they are more likely to experience a successful transition (Morris et al., 2016).

Conversely, if they have inaccurate perceptions of the transition (e.g., they consider it more difficult or easy than it is in reality) or perceive it to be an adverse event, this can be debilitating to transition outcomes (Čačija, 2007). Equally, if athletes have appropriate psychological resources, they can overcome any psychological deficiencies they may experience (or experience the negative consequences of this if this is not the case).

Externally, social support, as highlighted earlier, is considered facilitative to transition (Bennie & O'Connor, 2006). If appropriate and continual support is provided, athletes will experience the benefits of this; hence, this being identified as a potential facilitator in the model of transition. Identified earlier, there are also several sources of stress and physical demands which are considered debilitating to junior-to-senior transitions. Specifically, coach-athlete relationship demands/conflict (Bruner et al., 2008), injuries (Bennie & O'Connor, 2006), organisational stressors (Franck & Stambulova, 2018a), and the increased physical exertions expected and required in senior sport (Morris, 2013a) are some examples of external debilitators. In such instances, if athletes experience external sources of stress or physical demands (e.g., a combination of several debilitators), or if one or a number of these demands is of particular difficulty for the individual and results in heightened associated stress or anxiety for the athlete, they can be debilitating to transition outcomes. Performance development factors, including the perceived readiness for the next level of competition and earning playing time, were identified as potentially facilitative or debilitating in associated

literature. For example, if athletes move to senior sport and are given instant playing time as a senior athlete, this may be facilitative to performance. Conversely, if athletes, as commonly happens, move to senior sport yet do not achieve instant playing time, they may experience this as a debilitator to their transition (Bruner et al., 2008).

At the culture and environmental level, organisational culture and values can be considered either facilitative or debilitative according to the associated literature. For example, if an organisation has a youth development environment which is considered facilitative of talented athletes and this is reflective of the first-team environment which supports youth development, it can become facilitative (Morris et al., 2015).

Conversely, youth culture and values are considered debilitative to transition outcomes (Finn & McKenna, 2010). Consequently, these elements are outlined in the associated model of transition. For example, if talent development is not a vital component of an organisation and they do not view youth development as a critical component of their approach, their talent development approach may not be facilitative of this, making these cultures and values debilitative to talent development. As highlighted above, the associated literature also highlights that the move to senior sport can be characterised by a senior team environment which is often challenging for youth athletes, demanding of their skills and competencies, bereft of support, and "tests" their ability to integrate with senior athletes. This environment may be different from a youth environment which is designed to facilitate talent development and is hugely supportive of athletes, making the process harder for individuals. Ensuring greater parity between youth and senior environments, as has been highlighted, can help overcome this challenge and make the organisational culture and values and youth development culture and values more facilitative of development and the transition from junior-to-senior sport (Morris, 2013).

**4.3.4.3 Intervention.** Throughout the junior-to-senior transition literature, many interventions have been proposed as ways to facilitate the process. These include interventions that occur prior, during, and post-the move to senior sport, as outlined earlier (e.g., mentorship scheme). The model presented is reflective of this, identifying that interventions can be implemented across the transition process. It is also proposed that intervention can occur across the different transition features, including at the individual or organisational level.

**4.3.4.4 Transition Outcomes.** Transition outcomes outlined in the model feature in two main categories: athlete mental health and wellbeing and sporting performances. Much of the previous research on within-career transitions (e.g., Morris et al., 2017) has focused on how successful athletes are in senior sport. This narrow definition may be appropriate for organisations who are focused on talent development and achieving a high junior-to-senior transition rate which may help with financial gain (e.g., selling players who have come from their youth system for financial profit). Contrastingly, psychological governing bodies, such as the Health and Care Professions Council (2012) in the United Kingdom, stipulate that psychology practitioners should be concerned with enhancing the psychological health and wellbeing of those they support. This stipulation suggests that a definition of successful transition which focuses on purely performance outcomes is limited because it may not consider if athletes are psychologically healthy.

Acknowledging these contrasting standpoints, it is proposed in the current paper that a definition which clearly combines these aspects may be used to determine the outcomes of transition, with a successful junior-to-senior transition defined as when athletes are able to cope with the transition variables effectively, and both perform competently in senior sport and attain positive psychological health and wellbeing. Any other junior-to-senior transition is considered unsuccessful. For example, athletes may be performing well in senior sport, but

may not have good psychological health and wellbeing - this is considered unsuccessful in the current work. Exit transition is when athletes leave professional sport. It is conceivable that there may be similar aspects associated with transition out of sport when compared with the junior-to-senior transition. However, it is beyond the scope of this work to discuss which factors are associated with the exit from sport transition, and the model presented does not claim to represent this process.

It is also essential to consider at what time an athlete has a successful transition. As soon as athletes move up to senior sport, they may start to show signs that they are performing well in senior sport (e.g., competing against senior athletes; playing for the senior team in competitive matches; showing improvements in skill proficiency). However, when a transition can be defined as a successful one is open for interpretation. For example, it may be the situation that some athletes who perform well in junior sport may not subsequently perform well in senior sport. Contrastingly, athletes who may have struggled towards the end of their junior career but over time could manage the demands associated with the change may perform well and be more successful in senior sport. Specifically, in sports such as swimming and track-and-field, where athletes' performances can be objectively measured (e.g., times, distances), a successful transition could be considered when an athlete achieves a personal best within a senior competition. The outcome of transition may be best judged by coaches, managers, or athletes themselves at the end of the first year in senior sport, where athletes may or may not be retained or decide to continue in their sport.

The proposed model is offered as a progression of previous models of transition. For example, Stambulova's (2003) model suggested that athletes are required to cope with many demands associated with the transition, which is dependent upon the resources available and barriers to the transition. Similarly, our new model proposes that athletes are met with numerous transition variables, including individual and external factors, all of which may

have a dynamic influence on athletes' transition into senior sport. However, crucially, the new model recognises that these individual and external variables are acting within youth development and organisational culture, which can be facilitative or debilitative towards transition outcomes and athletes' development. Previous research has failed to fully understand the influence that culture may have on the junior-to-senior transition, whereas the current review underlines the fundamental influence that athletes' perceptions of the organisational culture may have on their development.

As identified earlier, by proposing this model of the junior-to-senior transition based upon a meta-synthesis of the associated literature, I am doing so as a guide for practitioners working with athletes about to undertake or currently undergoing the junior-to-senior transition. Practitioners can use this model as a way to guide consultancy questions, identify potential facilitators and debilitators to transition in their current context, and identify possible periods where intervention and support may be required and where this support should be targeted. This model of transition also provides a basis for future research, to this end, I propose the following:

1. Athletes with appropriate financial, social support, and material provision before transition are more likely to have successful junior-to-senior transitions.
2. Athletes who are supported at one of three levels, either an individual level, external level, or in an environment where the organisational culture and values and the youth development culture and values match, are more likely to experience successful junior-to-senior transitions than if no support is provided.

3. Combined provision, where focus before the transition is on support at individual, external, and cultural levels as combined provision, will lead to a more positive outcome than support at one of these levels alone.
4. If athletes experience negative performance transitions, they are more likely to experience adverse mental health and wellbeing transitions, and vice versa; and if athletes experience positive performance transitions, they are more likely to experience positive mental health and wellbeing transitions, and vice versa.

#### **4.4 Discussion**

The primary purpose of this study was to provide a systematic review of literature focused on the junior-to-senior transition. Specifically, this study: (a) provides an overview and critique of methodological and theoretical decisions which underpin current junior-to-senior transition literature; (b) systematically reviews, evaluates, and analyses literature on the junior-to-senior transition in sport regarding crucial factors that are perceived to influence the transition; and (c) provides a synthesis of findings regarding the factors that influence the junior-to-senior transition in sport.

As identified, from a meta-methods perspective, this study has identified several important methodological considerations for the development of the junior-to-senior transition literature. First, a majority of studies have been conducted in European countries, meaning results are not necessarily transferable outside of a European context. Second, researchers have primarily utilised interviews as their method of data collection. Many of these studies, due to their retrospective nature, have specified memory and recall bias as a limitation of their study (e.g., Finn & McKenna, 2010; Jones et al., 2014; Pummel, 2008a). Finally, a broad range of participants have been used in studies, including athletes and key stakeholders. Data, however, highlighted a lack of research which has focused exclusively

on female athlete participants. Future research may look to utilise narrative and longitudinal approaches to give an understanding of individual experiences of the junior-to-senior transition. Longitudinal studies will add to the transition literature by avoiding the limitations associated with retrospective research designs (Park, 2012). In addition, ensuring a diversification of samples by including a variety of cultures and female athletes in studies may add to the knowledge of the influence of specific contexts on the quality of athletes' junior-to-senior transition. Such knowledge can be crucial in developing the sport, culture, gender-specific knowledge needed to provide tailored support to transitioning athletes.

Meta-theory analysis showed that studies were primarily underpinned by two theoretical frameworks, the athletic career transition model (Stambulova, 2003) and the developmental perspective on transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational levels (Wylleman & Lavallee, 2004). As these theoretical frameworks identify particular aspects of transition which underpin the process, it is understandable that literature which uses these theories as guiding frameworks will produce results akin to these critical aspects. As highlighted by the meta-data analysis, however, there are some critical aspects of the junior-to-senior transition (e.g., the culture of the organisation) which are not highlighted in these underpinning models. Given this, future work which broadens the underpinning theories used may help advance knowledge on the process of moving to senior sport. Specifically, more research which uses frameworks which focus on areas of transitions highlighted in this review as being necessary to the process, but that have not been readily used (e.g., Henriksen's, 2010, athletic talent development environment model), and models which have been more recently proposed as providing a framework for the junior-to-senior transition, could help give a greater understanding of the process.

From the meta-data analysis conducted in this study, I identified 59 factors that were perceived to influence the quality of athletes' junior-to-senior transition. These 59 factors were categorised into one of 13 themes: perceptions of the transition, psychological factors, personal development factors, performance development factors, social support, motivation, sources of stress, physical factors, organisational culture and values, youth culture and values, coping strategies, mentoring / modelling, and educational programs, which were then categorised into one of 4 overarching themes, individual factors, external factors, cultural factors, and intervention strategies. The meta-data analysis gives rigour and comprehension to the current understanding of the junior-to-senior transition and provides both researchers and practitioners with a detailed understanding of the process. This knowledge can be used to underpin researchers and practitioners work.

By synthesising the findings of the meta-methods, meta-theory analysis, and meta-data analysis, I produced a model of junior-to-senior transition - the individual, external, cultural model of the junior-to-senior transition. Based on the meta-synthesis, I proposed that there are three underpinning features of the junior-to-senior transition, transition preconditions, transition variables, and transition outcomes. Transition preconditions are the conditions which are required before the start of the move from junior-to-senior sport and can include appropriate selection (or self-selection) and tangible support. Transition variables include individual variables, external factors, cultural factors, and interventions. Transition outcomes include the suggestion that a successful transition is only considered such when there are positive outcomes in terms of athlete mental health and wellbeing and sporting performances. By presenting data from the meta-synthesis in this way, in the current study, it can provide a model which represents the main findings and understanding of the junior-to-senior transition.

The new model is presented as an advancement, based upon relevant literature, of previous models describing sport transitions. For instance, Stambulova's (2003) model predicted that there are many demands, resources, barriers and coping mechanisms that interact throughout a sporting transition. Similarly, our new model proposes that athletes can experience many transition variables that influence their transition experience including individual and their key characteristics and external factors, all of which may have a dynamic influence on athletes' experiences. Importantly, however, the model identifies that the individual and the external variables which influence their transition are all acting within youth development and organisational culture, which can help or hinder their development. Previous works have failed to recognise the role which culture plays in transition - the current review highlights that culture underpinning the organisation may be vital for athletes' development.

#### **4.4.1 Applied Implications**

As previously mentioned, the meta-data analysis provides both researchers and practitioners with a clear understanding of the number of factors that can influence athletes transition outcomes. From a researcher perspective, the current study provides a framework which can be used to understand athletes' transition experiences, researchers may wish to focus on specific variables identified in this review. For example, external motivators are critical to the junior-to-senior transition. To date, however, their role in supporting athlete development through the junior-to-senior transition has yet to be fully explored (e.g., if external motivators are removed, does this mean athletes are less likely to be successful during the transition process). From a practitioner perspective, the meta-data analysis gives comprehension to our understanding of the junior-to-senior transition, meaning that practitioners can work with athletes to identify areas they consider important to their transition process, drawing from the list identified above. The current study also provides a

framework which can be used by practitioners to understand athletes' transition experiences, the challenges they are experiencing, and intervene appropriately. This can mean that support is more individually tailored to athletes' needs.

#### **4.4.2 Limitations and Recommendations for Future Research**

The meta-study has limitations which need to be considered. First, one limitation is that only English language studies were included in the analysis. During the search process, two Swedish studies were excluded, as the researchers were unable to obtain a copy of the articles in the English language (Ekengren, 2002; Mavroidis, 2005). The exclusion of these studies could have influenced the identification of potential themes associated with the junior-to-senior transition. However, it was required to ensure accuracy in the interpretation of the overall research results.

As highlighted in the meta-methods analysis and the discussion section of this study, several methodological considerations were identified, which lead to future research recommendations. First, a majority of the current research has employed retrospective, semi-structured interviews as their method of choice. This methodology only provides data on a specific time point of the transition and does not acknowledge the whole transition process. Furthermore, the use of a singular interview may not offer a complete picture regarding the changes athletes may experience throughout the transition process, which can span across several years (Stambulova et al., 2012). Given this, future research may look to employ longitudinal approaches to give an understanding of individual experiences of the junior-to-senior transition. Longitudinal research exploring the factors associated with the junior-to-senior transition could reduce this retrospective recall bias while developing an understanding of the transition process as it happens, which could highlight factors that are specific to particular stages of the transition process.

As highlighted in the meta-method, the transition literature has been conducted primarily in European countries; due to socio-cultural difference, these findings may not apply to the broader population (Finn & McKenna, 2010). Given this, a diversification of samples used, including a variety of cultures, religions, genders and other backgrounds, to determine whether this has an influence on athletes' experiences of the junior-to-senior transition, may help advance knowledge. For example, Morris (2013) noted the greater investment in football youth academies in Spain and Holland, compared to other countries. This financial investment in youth development may mean young athletes are given greater access to the support and resources they require during the transition, which may lead to greater retention of players. Developing this knowledge may be vital in developing the sport, culture, and gender-specific knowledge needed when providing tailored support to athletes going through the junior-to-senior transition.

Future research may also look to explore the junior-to-senior transition from a sport-specific perspective. The current study does not differentiate or offer a comparison of themes identified within varying sporting contexts. The type of sports athletes partake in may influence athletes' junior-to-senior transition; subsequently, the key themes that facilitate or debilitate the transition outcome may vary according to the sport. For example, the challenges a young football player might experience when moving from an academy team to the first team might be different from an athlete competing in an individual sport such as track-and-field (e.g., teammates and managers are likely to play a more significant role in supporting a transitioning football player; Morris, 2013; whereas a track-and-field athlete might rely on their parents, or coach for support during the transition; Hollings, 2014b). It is these nuances and sport-specific differences that are difficult to establish within a synthesis. Future research may look to explore sport-specific facilitators and debilitators to the junior-to-senior transition, to develop a greater knowledge of the specific demands experienced by athletes in

their sport. This research could then be useful in designing and implementing sport-specific interventions to assist athletes through the junior-to-senior transition.

At the time of carrying out the review, there were five quantitative studies on the junior-to-senior transition (Chamorro, Torregrosa, Oliva, Calvo, & León, 2016; Eriksson, 2010; Franck, 2009; Franck, Stambulova, & Ivarsson, 2018; Stambulova, Franck, & Weibull, 2012). Future research may look to provide a review of quantitative research to understand how this contributes to the broader body of literature on the junior-to-senior transition, and how this literature may influence the synthesis. For example, the Transition Monitoring Survey (TMS; Stambulova, Weibull, & Franck (2012) is a quantitative measure based on the Athletic Career Transition Model (Stambulova, 2003) and the Developmental Model of Transition faced by Athletes (Wylleman & Lavallee, 2004). Also, the Transition Coping Questionnaire (TCQ; Schlossberg, 1993) was based upon Schlossberg (1981) Human Adaptation to Transition model. Both questionnaires could be used to add to the current body of knowledge, particularly by measuring athlete responses at various points across the junior-to-senior transition and identify any changes that may occur during this period .

#### **4.5 Concluding Remarks**

The last decade has seen an increase in research associated with the junior-to-senior transition in sport, which is highlighted by the fact that over half of the studies in the review have been conducted since 2013. The purpose of the current study was to review the junior-to-senior transition literature using meta-study methods. The analysis identified 59 factors that were perceived to influence the junior-to-senior transition. These 59 factors fell into one of 13 themes, categorised into four overarching themes: individual factors, external factors, cultural factors, and intervention strategies. A model of junior-to-senior transition, which synthesises current knowledge, is proposed as a way to explain the process. The meta-study has provided an original contribution to the literature by demonstrating an intricate appraisal

of the key methodological features and sample characteristics of current papers, which subsequently highlights gaps in the current body of literature. Furthermore, the review is the first to provide a comprehensive account of the numerous factors that can influence athletes transition from competitive junior sport into senior sport.

In chapter 4, the meta-study identified a large number of factors that were perceived to influence the junior-to-senior transition across a range of sports (e.g., football, basketball, swimming). The review also identified that these factors may vary between individuals and sports. Therefore, in the following chapters the junior-to-senior transition will be explored from the specific context of British track-and-field. It is first necessary to understand the conversion rates of British junior athletes' to elite seniors' to understand the position of the sport in facilitating the transition process. To gain a better understanding of the transition and whether or not junior success is a prerequisite for senior success, the factors underpinning this success or otherwise will be explored in the proceeding studies.

## **Chapter V - Study Two**

**An Analysis of Great Britain Athletes**

**Progression from the World Junior**

**Championships to Senior Representation**

## 5.1 Introduction

As the previous study in the thesis highlights there are a number of factors that can influence the junior-to-senior transition. There has been research on the junior-to-senior transition across a number of sports looking to describe some of the sport-specific challenges including; ice-hockey (Bruner et al., 2008; Olsson, & Pehrson, 2014), tennis (Franck, & Stambulova; 2018a; Pummell, 2008), basketball (Lorenzo et al., 2009), football (Mills et al., 2012; Morris et al., 2017; Morris et al., 2016; Morris et al., 2015; Røynesdal, 2015), swimming (Franck, & Stambulova; 2018a; Vujic, 2004), and equestrian (Alge, 2008; Pummell et al., 2008). However, as outlined in the meta-study, the factors that can impact the transition may vary across sports. For example, the challenges experienced by a transitioning football player (e.g., earning game time, building new relationships in the first team) will be different to those experienced by a golfer (e.g., establishing themselves on the pro-tour). Therefore, it was deemed necessary to explore the transition within a specific context in order to develop a clear understanding of the process within that sport.

Empirical research on the junior-to-senior transition in track-and-field has been sparse with a small number of studies exploring the transition in this context (Bennie, & O'Connor, 2004; Hollings, Mallett, & Hume, 2014; Hollings, 2014). However, as identified in the previous study, all of the research on the junior-to-senior transition in track-and-field has been conducted exclusively in Australasia.

Great Britain has an elite junior development programme which aims to provide support for athletes on the pathway to the senior World Class Programme that have been highlighted as having potential to win medals at future Olympic Games (British Athletics, 2017). The success of this programme could be determined by whether these athletes on the development programme successfully make that transition into senior-level athletics, and whether they go on to win medals at global championships. What current research has failed

to identify is whether or not more recent financial investment and World Junior Championship involvement means competing at this level is now a stronger predictor of senior success. To contextualise, for example, UK Sport has recently invested significantly in UK Athletics development, increasing the support for the Olympic cycles from £10.6million for Sydney 2000, up to £26.8million for Rio de Janeiro 2016, to £27.1million for 2020 Tokyo. The expectation, in keeping with this level of funding, was and is that UK Athletics would see an increase in the number of athletes successfully medalling at an Olympic Games and IAAF World Athletics Championships. One way to potentially increase the probability of having a world-class senior athlete would be to nurture and support high-achieving junior athletes through the transition. It is unclear, however, if this financial investment over the most recent cycles is giving athletes an increased chance of becoming successful senior competitors.

A successful transition from junior-to-senior level is critical for athletes aspiring to reach an elite status. Athletes, coaches, and national governing bodies are undoubtedly in agreement in their goal to achieve peak performance in adulthood rather than adolescence (Hollings, 2014). A large number of sporting federations have talent development systems in place to support talented juniors make the transition onto the senior world stage (Hollings, 2014). However, there is often much debate over whether successful performances at a junior level in sport are a prerequisite for senior success (Hollings, & Hume, 2010).

There have been attempts to quantify the magnitude of the junior-to-senior transition in track-and-field by identifying the transition rates (Grund, & Ritzdorf, 2006; Hollings, & Hume, 2010; Zelichenok, 2005).

First, Otte (2002) provided quantitative research and followed the careers of 835 World Junior Championships finalists from 1986-1996 until 2002. Otte found that 64% of those athletes demonstrated further performance improvement and development following

the World Junior Championships, while 26% went on to make a final in the World Athletics Championships and/or Olympic Games. However, one limitation of this study is that it focused exclusively on male athletes, making it impossible to draw conclusions or comparisons regarding the female athlete. Furthermore, the findings from the previous study in the thesis (see chapter 4), highlighted a lack of research on female athletes transition experiences. Therefore, the current study will look to advance previous knowledge by including both male and female athletes to obtain a more complete understanding of athletes experiences with a sport.

Support for Otte's (2002) study comes from Scholz (2006) who described the World Junior Championships as a springboard to becoming an elite level senior. Scholz (2006) retrospectively tracked the careers of world-class throwers (discus throw, hammer throw, javelin throw, shot putt) who competed in their respective final at the senior 2003 World Athletics Championships in Paris. Scholz identified that high-performance within the junior age-group is a prerequisite for success as an elite-level senior athlete and illustrated this by stating that in the men's shot putt at the 2003 World Championships in Athletics, seven out of the eight finalists had previously represented their country at international junior championships. In addition, five of the top 8 finishers had won a medal at a World Junior Championships, and three had been World Junior Champions. Scholz described the World Junior Championships as playing an essential role in the development of talented young throwers and concluded that athletes with international experience as juniors would be more successful than those without previous junior experience. Again, the exclusive focus on throwing disciplines means it is not possible to make any assertions regarding other track and field disciplines. Therefore, the current study will look to explore the transition across all athletic disciplines.

More recently, Hollings (2014) conducted a large-scale study where they retrospectively and prospectively tracked the biographical and performance data from elite athletes. First, Hollings retrospectively tracked the performances of 275 elite senior athletes, who were either World Champions, Olympic Champions, or a Beijing Olympic medallist, between 1986-2008, from when they were junior athletes. Hollings found that of the 137 Athletics World Champions, who had previously competed at a World Junior Championships, 80% were junior medallists or finalists. Of the 81 Olympic Champions, that had previously competed at a World Junior Championships; 90% were junior medallists or finalists. Also, of the 121 Beijing Olympic track and field medallists, 47% of athletes had competed at a previous World Junior Championships, and 82% of these athletes were World Junior medallists or finalists. The retrospective analysis supports the assumption that junior success is a prerequisite for senior success, as World Junior medallists and finalists are more likely to achieve senior success at a major championship compared to athletes who did not compete at a World Junior Championships.

However, prospective analysis provides an opposing story. Hollings went on to prospectively track the performances of junior athletes who had won an individual medal at the World Junior Championships between 1986 and 2004. The results showed that from the 1,054 World Junior Championship medallists, 21% went on to become senior global medallists, 13% went on to be global finalists, while 12% were global competitors. However, over half (54%) of World Junior Championship medallists did not go on to reproduce the same level of performance and compete as an elite senior athlete. One potential limitation of this study is that it focused on World Junior medallists only. As demonstrated in Hollings previous study, World Junior medallists are more likely to go on to achieve senior success than World Junior competitors. It could also be interesting to perform analysis where all

world junior athletes were included, to understand the progression rates from the Championships as a whole.

As outlined, previous research that quantified the junior-to-senior transition in track-and-field appears to have some significant limitations with regards to methodology (e.g., male-only athletes, throwers only, lack of transparency in methods used). To fully understand whether success as an elite junior is a prerequisite to achieving success as an elite senior athlete, it is essential that supporting empirical data be analysed and produced (Hollings, 2014). As previous research in athletics has demonstrated contradictory findings regarding the junior-to-senior transition, it was determined to be necessary to review the transition from the specific context of British track-and-field and focus on one nations talent development rates.

Therefore, the current study will explore whether or not progression rates for British junior athletes into senior sport have changed in keeping with the significant investment in development pathways in recent years. The purpose of the current study is to explore the performance progression of elite British junior athletes who have competed at the World Junior Championships. Specifically, the study will look to establish if these athletes go on to (a) achieve a personal best/peak performance as a senior athlete, (b) represent Great Britain at major senior championships, and whether (c) World Junior medallists are more likely to transition into the senior ranks than non-medal winners.

### **5.1.1 IAAF World Junior Championships in Athletics**

The first World Junior Championships took place in Athens in 1986 and has been held biannually since its inception. The World Junior Championships, now known as the IAAF World U20 Championships, is for athletes aged up to 19 years on 31<sup>st</sup> December in the year of the competition (IAAF, 2019) and has become a key target in the competition calendar for junior athletes and sporting federations (Scholz, 2006). The first edition of the

World Junior Championships was a huge success and allowed future Olympic Champions to compete against the rest of the World. As former IAAF President Primo Nebiolo stated: “It gave us an opportunity to showcase tomorrow’s stars as they take their first steps to greatness. The championships give youngsters a chance to gain the valuable experience of top class competition” (IAAF, 2014).

Since its introduction in 1986, the IAAF World Junior Championships has seen a number of its athletes go on to achieve greatness in the senior World Championships and Olympics Games. Some examples of athletes who have won the World Junior Championships and have gone on to have illustrious senior careers include the likes of Usain Bolt, Colin Jackson, Javier Sotomayor, Meseret Defar, David Rudisha, Ato Boldon, and Haile Gebrselassie, to name a few.

Great Britain has a credible history in performing at these championships and sending strong teams to compete (e.g., athletes expected to finish in the top 8). Great Britain currently places 7<sup>th</sup> on the all-time medal table from the World Junior Championships with a total of 91 medals (as of 2018). Previous British World Junior Champion medallists include Christian Malcolm, Carl Myerscough, David Parker, Mark Lewis-Francis, Sarah Wilhelmy, Vernicha James, Andrew Sutcliffe, Katerina Johnson-Thompson, and Adam Gemili. The World Junior Championships in Athletics is the pinnacle of any British junior athletes’ career, with challenging qualification standards needed to be achieved to attend the event. High performing junior athletes from the World Junior Championships are often given funding and sponsorship deals to support them as they aim to become elite senior athletes.

In summary, the World Junior Championships is the focus for this study because it is an international competition for world-class junior athletes, with the ambition to provide athletes with an experience that will help them to make the transition into top-flight senior

athletics. Athletes who compete in the World Junior Championships are amongst the best, not only in their country, but in the world.

## **5.2 Method**

### **5.2.1 UK Athletics Context**

The progression rates of athletes within UK Athletics (the National Governing Body for athletics in the United Kingdom of Great Britain and Northern Ireland – <http://www.britishathletics.org.uk>) talent development systems were used as the case under examination for this study. This context was selected because the primary researcher has a history of competing in the sport and over the years had anecdotally observed many athletes experiencing various level of success in making the transition into senior sport.

In addition, Great Britain has a long history of producing outstanding senior athletes and has received considerable investment to continue to win medals at major senior championships. During the 2016 Rio Olympic cycle athletics was the third most funded sport in the United Kingdom. At the Rio Olympic Games, Great Britain won five individual medals from four athletes (Mohammed Farah – 5000m/10,000m, Sophie Hitchon – Hammer Throw, Greg Rutherford – Long Jump, Jessica Ennis-Hill – Heptathlon), which was portrayed as a success in many quarters. However, since then both Greg Rutherford and Jessica Ennis-Hill have retired from competitive track-and-field. Moving forward, UK Athletics received a funding increase from UK Sport – the body responsible for running elite sport in the country and funded in part by the UK taxpayer – for the 2020 Olympic cycle. This increase in funding moved athletics to the second-highest funded sport in the United Kingdom behind rowing. It is therefore imperative that UK Athletics can win medals at the forthcoming Olympic Games to justify the financial investment and secure subsequent funding for the future of the sport. This need to secure the future of the sport leaves the country looking to their up-and-coming athletes to step up and experience success on the

senior stage. To achieve this, sports should have effective transition programmes in place to support and maximise the conversion of successful junior athletes to senior performers.

### **5.2.2 Period of Observation**

In an attempt to understand the transition and progression rates of junior athletes to senior performers, data were retrospectively analysed by tracking every member of the Great British World Junior team from 1998 to 2012, and their subsequent sporting performances. The rationale for exploring data within this timeframe was to ensure the accuracy and validity of data extraction. Performance data from pre-1998 was often incomplete and made it difficult to trace athletes' performance progression year-on-year reliably.

The period of observation was up until the 14<sup>th</sup> August 2017 after the conclusion of the senior 2017 IAAF World Athletics Championships in London. Although there have been three more editions of the World Junior Championships since 2012, it was not considered long enough to allow for junior competitors to demonstrate their ability on the global senior stage. For example, when athletes compete at the World Junior Championship they still have a number of years (usually 3 or 4) before they reach the senior age group. Therefore, World Junior Championships data was only analysed up until 2012 as this allowed athletes to reach the senior age group and have a minimum of 1-2 years competing at this level.

### **5.2.3 Participants**

A total of 317 athletes had represented Great Britain at one or more of the eight editions of the World Junior Championships held from 1998 to 2012. Athletes' performances from the World Junior Championships were collated using official web-based databases (IAAF and ThePowerof10), where official results of competitions in athletics are published. An excel spreadsheet was used to record data, specifically: (1) name, (2) event competed in at World Junior Championships, (3) finishing position at World Junior Championships, (4) personal best performance as a junior (U20), (5) personal best performance as an U23, (6)

personal best performance as a senior, and (7) athletes' championship honours. Data around senior performance was explicitly recorded to identify whether or not athletes have gone on to represent the senior Great Britain team at a major championship (e.g., European Athletics Championships, IAAF World Athletics Championships, and/or Olympic Games). Athletes who competed in more than one event as a junior were monitored in terms of their progression in both events.

**5.2.3.1 Exclusions.** Athletes who changed their athletic discipline (e.g., moving up in distance from 200m to 400m) from junior-to-senior were still tracked in terms of their championship honours; however, their performance progression could not be tracked from junior level if they had changed event. A total of eight of the 317 athletes' chose to specialise in a different discipline as a senior athlete than the event they competed in at the World Junior Championships. These eight athletes were not assessed in terms of their performance progression because it was not possible to establish if they had produced a personal best after leaving the under-20 age group in their favoured discipline. An example of one of these athletes includes Timothy Benjamin, who finished 3<sup>rd</sup> in the 200m at the 2000 edition World Junior Championships in Chile. Timothy's personal best for the 200m is 20.67, which he recorded as a junior at the age of 19. However, Timothy went on to specialise in the 400m where he had a successful career competing in the Olympic Games (relay), World Championships, and European Championships, and also produced a personal best in the 400m in the senior age group at the age of 23 years old. Athletes who chose to specialise in a different discipline were excluded from this part of the analysis, as it would not be justified to describe these athletes, like Tim, as not improving their personal best when some may have gone on to achieve success in a different discipline. All athletes were still included in the analysis identifying their senior honours and representation.

In addition, athletes who had not yet reached the senior age group were excluded from some parts of the analysis. Four athletes who competed at the World Junior Championships in 2012 were not yet senior athletes and therefore it was not possible to assess their performance at a senior level.

#### **5.2.4 Statistical Analysis**

Data were obtained, stored, and analysed in Microsoft Excel. Percentages were calculated for each of the eight editions of the World Junior Championships to show variation in progression rates. This calculation was done in addition to overall rates. The analysis involved identifying whether athletes who had competed at a World Junior Championships for Great Britain had:

1. Won a medal at the World Junior Championships
2. Achieved a personal best/peak performance as a senior athlete
3. Represented Great Britain at major senior championships (Olympic Games, World Championships and European Championships); and
4. Won a medal at a senior major championships

### **5.3 Results**

#### **5.3.1 World Junior Championships to Peak Performance**

Table 5.1 presents data concerning the percentage of athletes who competed for Great Britain at the World Junior Championships (1998-2012) who went on to improve their personal best as a senior athlete. Athletes who were not yet senior athletes (n=4) and athletes who chose to specialise in a different athletic discipline after the World Junior Championships (n=8) were excluded from this part of the analysis as their performance differences between junior and senior status could not be assessed.

Table 5.1

*Great Britain's World Junior Athletes who have not Achieved a Personal Best Performance as a Senior Athlete*

<i>World Junior Championships</i>	<i>% of world junior athletes who did not achieve a personal best performance as a senior athlete</i>
<i>1998 – Annecy, France</i>	<i>68%</i>
<i>2000 – Santiago de Chile, Chile</i>	<i>57%</i>
<i>2002 – Kingston, Jamaica</i>	<i>57%</i>
<i>2004 – Grosseto, Italy</i>	<i>53%</i>
<i>2006 – Beijing, People's Republic of China</i>	<i>54%</i>
<i>2008 – Bydgoszcz, Poland</i>	<i>61%</i>
<i>2010 – Moncton, Canada</i>	<i>67%</i>
<i>2012 – Barcelona, Spain</i>	<i>84%</i>
<i>Average</i>	<i>63%</i>

Results showed that on average 63% of athletes who competed for Great Britain at a World Junior Championships (1998-2012) failed to go on to improve their personal best as a senior athlete. A breakdown from each World Junior Championships of the percentage of athletes who did not achieve a personal best performance as a senior are as follows: 1998 = 68%, 2000 = 57%, 2002 = 57%, 2004 = 53%, 2006 = 54%, 2008 = 61%, 2010 = 67%, and 2012 = 84%.

It is worth noting that those athletes' who competed at the IAAF World Junior Championships in 2012 are relatively new to the senior age group, so they still have time to achieve peak performances as a senior athlete. However, even by excluding the 2012 World Junior Championships results from the analysis, over 60% of World Junior athletes have still failed to achieve a personal best performance as a senior athlete.

### **5.3.2 World Junior Championships to Senior Representation**

Table 5.2 summarises the data concerning the percentage of athletes who competed for Great Britain at the World Junior Championships and who went on to represent Great Britain in an individual event at a senior major championship. Results were consistent across

all World Junior Championships, with an average of 67% of athletes who competed for Great Britain at the World Junior Championships failing to go on to represent the senior Great Britain team at a major championship. A breakdown from each World Junior Championships of the percentage of athletes who did not go on to represent the senior Great Britain team are as follows: 1998 = 69%, 2000 = 68%, 2002 = 68%, 2004 = 66%, 2006 = 65%, 2008 = 70%, 2010 = 67%, and 2012 = 65%.

Table 5.2

*Great Britain's World Junior Athletes who have not Achieved Senior Representation*

<i>World Junior Championships</i>	<i>% of world junior athletes who did not go on to represent Great Britain at a major senior championship</i>
<i>1998 – Annecy, France</i>	69%
<i>2000 – Santiago de Chile, Chile</i>	68%
<i>2002 – Kingston, Jamaica</i>	68%
<i>2004 – Grosseto, Italy</i>	66%
<i>2006 – Beijing, People's Republic of China</i>	65%
<i>2008 – Bydgoszcz, Poland</i>	70%
<i>2010 – Moncton, Canada</i>	67%
<i>2012 – Barcelona, Spain</i>	65%
<i>Average</i>	67%

Table 5.3 outlines the number of athletes that competed at the World Junior

Championships (n=317) who went on to achieve a medal at a major senior championship in an individual event (n=27). On average 8.5% of the athletes that competed at a World Junior Championships for Great Britain between 1998 and 2012 went on to win an individual medal at either a European, World, or Olympic Games. Great Britain has achieved 32 European Championship medals (11=Gold, 9=Silver, 12=Bronze) from 22 athletes, 15 World Championship medals (9=Gold, 5=Silver, 1=Bronze) from 7 athletes, and 8 Olympic medals (5=Gold, 1=Silver, 2=Bronze) from 4 athletes who competed in the World Junior Championships between 1998-2012. It is worth noting that, at the time of writing, two

athletes (Mohammed Farah and Jessica Ennis-Hill) contributed a significant number of medals to those tallies (24).

Table 5.3

*Great Britain's World Junior Athletes who have won a medal at a major senior championships*

<i>World Junior Championships</i>	<i>% of world junior athletes who have gone on to win a medal at a major senior championships</i>
<i>1998 – Annecy, France</i>	8.3%
<i>2000 – Santiago de Chile, Chile</i>	14.6%
<i>2002 – Kingston, Jamaica</i>	10.7%
<i>2004 – Grosseto, Italy</i>	6.3%
<i>2006 – Beijing, People's Republic of China</i>	10.0%
<i>2008 – Bydgoszcz, Poland</i>	7.0%
<i>2010 – Moncton, Canada</i>	8.9%
<i>2012 – Barcelona, Spain</i>	7.5%

### **5.3.3 World Junior Championship Medallists**

Additional analyses were carried out to establish if winning a medal at the World Junior Championships increased athletes' chances of achieving success at a senior level. Of the 26 Great Britain World Junior individual medallists (relays excluded), 19 (73%) went on to represent Great Britain at a major senior championship.

A cause for concern, however, is that of the Great Britain World Junior medallists, 69% did not go on to progress and improve their personal best as a senior athlete. Also, World Junior medallists' peak age (when athletes achieved their personal best performance) was 21 years old (i.e. before they reached the senior age-group). Athletes who won a medal at a World Junior Championships but did not manage to go on to gain senior GB representation had a peak performance age of 19 years, meaning these World Junior medallists did not improve their performances after leaving the junior age group.

## 5.4 Discussion

The current study was designed to explore if junior success is a prerequisite for achieving senior success, and whether or not progression rates for British junior athletes into senior athletics have changed in keeping with the significant investment in development pathways in recent years.

The purpose of the current study was to explore the performance progression of elite British junior athletes who have competed at the World Junior Championships from 1998 to 2012. Specifically, to establish if these athletes go on to (a) achieve a personal best/peak performance as a senior athlete, (b) represent Great Britain at major senior championships, and whether (c) World Junior medallists are more likely to transition into the senior ranks than non-medal winners.

First, one finding from the analysis highlighted that 63% of British athletes who competed at a World Junior Championships failed to go on to improve their personal best as a senior athlete. The findings demonstrate that these elite junior athletes achieved their peak performance before they reached the senior age group, meaning they peaked, at the latest, at 22 years old, with a substantial number of junior athletes peaking at a much younger age.

One explanation for the lack of progress from elite junior to elite senior status could be due to the intensive training necessary to prepare for such a high-level competition at an early age. It could be that athletes who reach early physical maturity and experience intense training regimes to achieve junior success are doing this to the detriment of their long-term progression as a senior athlete (Hollings & Hume, 2010). Güllich and Emrich (2014) found that it is possible to reinforce rapid athletic development for junior athletes through early specialisation, high-intensity specific practice, and early start-age for training/competition. However, this premature acceleration may come at a cost for junior athletes and potentially jeopardise their performance as a senior athlete (Hollings, 2014). Athletes who specialise

early are more likely to reach peak performance at a younger age than athletes who specialise later (Smith, 2003). Güllich, Pitsch, Papathanassiou and Emrich (2000) have reported that, more recently, the age of young athletes starting sport is decreasing while age-related training volume is increasing. In sports where peak age is much lower, and post-pubertal body size and strength are not necessary or are even detrimental to performance, such as gymnastics, it seems intuitive that the early development of sport-specific skills is necessary for elite status (Güllich et al., 2000). However, in the context of British track and field athletes, early specialisation may be a possible explanation as to why so many junior athletes fail to achieve their peak performance as a senior athlete. Concerning the specific population in this study, athletes may be put under intense, highly specific training regimes from a young age to reach the qualification standards of the World Junior Championships, such that they experience a rapid and early athletic development to achieve short-term success. This early specialisation may lead to athletes experiencing stagnation in their performance, injuries, and dropping out of the sport all together before they reach the ideal-peak age (Grund, & Ritzdorf, 2006). Some research has suggested that late specialisation, older than 12, in some sports, can result in better sporting achievements than athletes who specialise early (Baker, & Cote, 2006; Lidor, & Lavyan, 2002; Moesch, Elbe, Hauge, & Wikman, 2011).

British Athletics primarily use athletes' performances and successes as the criteria for selection at the World Junior Championships, encouraging young athletes to strive for high standards. However, all athletes will experience unique sporting progression pathways, forming differing trajectories. For example, athletes included in the study will vary on their experience of specific moments such as starting in organised sport, taking part in their first competition, and making their first national team, all of which will influence their development (Wylleman, De Knop, Ewing, & Cumming, 2000). Often athletes who are "early developers" will experience biological advantage over their peers and are subsequently

more likely to specialise early, achieve peak performance at a younger age, and potentially gain selection to compete at elite competitions such as the World Junior Championship (Musch & Grondin, 2001). However, this biological advantage can dissipate into adulthood, often leading to stagnation in athletes' performances, with "early developers" being surpassed by athletes who have matured and specialised at a later age (Barreiros, Côté, & Fonseca, 2014).

In the current study, early specialisation may be present amongst junior athletes who need to reach the high-quality standards required to compete at the World Junior Championships. Athletes and their coaches may increase training volume and employ highly specified training methods to give themselves, and their athletes, the best chance of achieving the qualification standards and gaining selection for international junior competitions. This may offer an explanation as to why 63% of British Junior athletes achieved their peak performance before reaching the senior age-group. This early specialisation may then mean athletes go on to reach peak performance at a much earlier age and are then potentially faced with the negative associations of early specialised training. Early specialisation can lead to an array of negative consequences for a young athlete, including risk of injury (Barreiros et al., 2014), decreased sport enjoyment (Law, Côté, & Ericsson, 2007), sport dropout (Wall, & Côté, 2007), and burnout (Harlick & McKenzie, 2000). These consequences can prevent athletes from achieving peak performance in adulthood and prematurely drop out of the sport, which may help to explain why there has been no increase in development rates of British junior athletes in proceeding Olympic cycles.

Moreover, there has been a substantial amount of empirical research looking at the age of peak performance in elite track-and-field (e.g., Berthelot et al., 2012; Haugen, et al., 2018; Hollings et al., 2014; Tilingier, Kovář & Hlavatá, 2005), all of which highlights that peak performance of elite athletes is not expected to be achieved before athletes have reached

the senior age group, unlike many of the junior athletes in this study. Having knowledge of peak performance age within the specific context of track and field can help inform selection decisions but also provide athletes, coaches and national governing bodies with guidance on how to correctly prepare athletes for major international competitions and senior events. All track-and-field athletes should be looking to reach peak performance beyond the age of 25 years if senior success is desired (Haugen et al., 2018). The average age of Olympic Games or a World Championships medallist has been gradually increasing over time, with athletes over the age of 30 winning World and Olympic medals and still improving their personal best (Zelichenok, 2005). This research highlights that all athletes, irrespective of their athletic discipline should be aiming to achieve their peak performance several years into the senior age group, something so many of the athletes in this study failed to do. Despite being Great Britain's highest achieving junior athletes, GB juniors were still challenged when trying to produce a personal best performance as a senior athlete, with even junior medallists' failing to make the required progression needed to succeed at a senior level.

In addition to identifying a lack of performance progression amongst talented British Junior athlete, the current study also found that 67% of athletes who competed for Great Britain at the World Junior Championships failed to go on to represent the senior Great Britain team at a major championship.

Several national governing bodies, British Athletics included, have invested their time and resources into promising young junior athletes with the expectation that these athletes will provide a return on their investment, potentially in the form of medals, when they transition to become successful senior athletes. The World Junior Championships is seen as stepping-stone for elite junior athletes to follow in the footsteps of previous high achievers who have gone on to have senior success following elite junior performance. Athletes who perform well at a World Junior Championships are often provided with many resources,

including financial, based on the assumptions that elite junior performances translate into elite senior performances. The results of this study highlight that this premise is flawed. This study showed that 67% of athletes who competed at the World Junior Championships for Great Britain did not go on to represent their country at a senior major championship in an individual event and were not successful in making the transition from being an elite junior to an elite senior athlete. Despite national federations having talent development systems in place, the high attrition rate of elite junior athletes is a cause for concern. The results from this study are markedly consistent across all eight championships, with the percentage of athletes who did not manage to achieve senior Great Britain representation ranging from 65% to 70%. These findings do not mean that athletes did not go on to compete as a senior athlete, but instead, they failed to replicate the same success they had as a junior athlete, with many athletes going on to compete at a lower level (e.g., regional, county) rather than making a senior championship. The identification of a large number of elite junior athletes failing to reproduce performances attained as juniors highlight the level of difficulty in transitioning from a junior-to-senior status in athletics. Many athletes have even achieved gold medals for Great Britain at the World Junior Championships and have failed to go on to improve their personal best and / or gain senior representation at a major senior championship. These athletes rank amongst the highest in the world for their age and are still finding it challenging to transition into senior level competition.

The present study advances current knowledge by analysing athletes' performances across eight editions of the IAAF World Junior Championships between 1998- 2012. This study provides an evaluation of whether or not the sport is improving its ability to retain and develop elite junior athletes via the tracking of performances across 19 years. The overall findings of the current study highlighted that the progression rates of athletes in the current context have remained consistent over the past few Olympic cycles. Disappointingly, despite

significant financial investment in the sport in proceeding years, there are no apparent increases in development rates of athletes.

The results from this study and previous literature raises a concern about the transition from elite junior to elite senior athlete status. The inability of so many elite junior athletes to replicate the success they have as a junior onto the senior stage suggests that there are other factors (e.g., psychological, social, educational, political, competitive, cultural, genetic, and physical) that are inhibiting a successful transition. As mentioned, one example influencing athletes' transitions could be due to the level of intense training required at a young age to achieve success on the junior world stage, which can be at the detriment of athletes' senior careers (Hollings, 2014). Also, athletes who reached an early physical maturity may be capitalising on this to obtain short-term gains and elite performance at a junior level. Emphasis should be on the appropriate long-term development of athletes rather than early success so that athletes are more likely to go on to peak as a senior athlete and achieve their goals (e.g., compete at an Olympic Games; Côté & Gilbert, 2009; Henriksen, Stambulova, & Roessler, 2010).

#### **5.4.1 Applied Implications**

The World Junior Championships is a prestigious competition for junior athletes and performs a vital role specifically in assisting their decision whether to continue to invest their time and effort in sport. Athletes who assess their World Junior performance as less successful are more likely to question their commitment (Hollings, 2014).

The current study has explored the junior-to-senior transition and contributed additional knowledge into understanding the progression rates of transitioning athletes. The study has quantified the progression, highlighting the challenge of successfully negotiating the step up into the senior ranks. Irrespective of whether athletes have experienced success as a junior athlete or not, they must be encouraged and supported in their long-term

development, both within and outside of their sport (Morris et al., 2015). One finding from the study demonstrated that many athletes were failing to achieve peak performance in the senior age group. A key emphasis moving forward, should be placed on supporting athletes to produce their best results when they reach the senior level.

Overall, the results of the current study provide national governing bodies in athletics quantitative data to understand the current situation of the junior-to-senior transition, as well as a basis to restructure and improve current transition development programmes.

#### **5.4.2 Limitations and Recommendations for Future Research**

The current study has provided objective and quantifiable data highlighting the challenge in retaining athletes during the transition from junior-to-senior sport. This study is the first of its kind to analyse British athletes' performances and progression from junior-to-senior level, and outline the improvements, or otherwise, of the rates of progression over the proceeding period. Despite this, the present study has de-limitations and limitations that should be considered when viewing the results. First, all data was collected from 2012, up to and including the 1998 World Junior Championships, but not before this point. It was not possible to analyse performance data from athletes who competed at earlier World Junior Championships, as results and athletes' subsequent competition results were often incomplete or inaccurate.

A second de-limitation is that while the analysis identifies that progression rates with regards to the junior-to-senior transition and the retention of elite junior athletes have not improved in recent cycles, it does not identify evidence of the cause or reasoning behind such findings, but instead identifies that this is a current issue that must be explored further. Future research should look to identify and correlate the factors that influence athletes' abilities to transition onto the senior stage, albeit successfully or unsuccessfully. While there has been an increase in this type of literature in proceeding years, it is clear that context-specific

knowledge of many sports is still required. Future research needs to explore the reasons behind why some elite juniors can successfully transition into the senior environment, while other junior athletes of comparable ability do not make this transition. The reasons may not be exclusively performance-related and are likely to include many psychological, social and environmental factors (Hollings, 2014). In the current study, for example, it was highlighted that despite increased investment in supporting the development of junior athletes to become elite senior athletes, British Athletics is still producing many athletes who are unable to make the transition successfully. It is therefore crucial to understand the reasons behind both successful and unsuccessful transitions.

### **5.5 Concluding Remarks**

This study highlights the conversion rates of elite British junior athletes as they attempt to transition into senior sport. Findings from this study contribute to a further understanding of the critical transition period athletes' face when moving from junior-to-senior sport, as the data suggests, in many cases, junior success does not pre-empt senior success. Even more remarkable is the consistency of development statistics from each World Junior Championships from 1998 to 2012, with no more than a 2% fluctuation in the success rates around the average. The probability of achieving success at a senior level is much higher, however, if the athlete won a medal at the World Junior Championships. The results of the analysis quantify athletes progression rate and highlight the challenge associated with predicting future success as a senior athlete based on junior performance. Moving forward, it is necessary to develop a richer understanding of athletes perceptions and experiences of the junior-to-senior transition. Future research should look to explore factors that may influence athletes development and offer an explanation for the current progression rates of British track-and-field athletes.

## **Chapter VI – Study Three**

### **A Cross-Sectional Analysis of Athletes’ Experiences of the Junior-to-Senior Transition (Successful vs Unsuccessful)**

## 6.1 Introduction

The findings from study 1 of the thesis (see chapter 4) found that there are a large number of factors that have the potential to influence the outcome of athletes' junior-to-senior transition. A total of 27 studies identified 59 factors that were perceived to influence the junior-to-senior transition. These 59 factors fell into one of 13 themes, which were then categorised into 4 overarching themes: individual factors, external factors, cultural factors, and intervention strategies. The meta-study provided a comprehensive and detailed analysis regarding the number of factors that can influence an athletes' junior-to-senior transition. The study explored the factors identified across a range of participants (e.g., athletes, coaches, parents, physiotherapist), sports (e.g., football, ice-hockey, tennis, squash), nations (e.g., Sweden, United Kingdom, Australia, Canada), and abilities (e.g., club, elite, professional).

The second study in the thesis performed an analysis of Great Britain's athletes' progression from the World Junior Championships to senior representation in track-and-field. Specifically, this study explored the performance progression of elite British junior athletes who have competed at the World Junior Championships to establish if they go on to make a successful transition into the senior ranks. The results of the study highlight that British track-and-field athletes are finding the transition into the senior environment challenging with many athletes unsuccessful in their attempts, while the national governing body is not improving in their ability to retain talented junior athletes.

Building on Studies 1 and 2, it is necessary to develop the knowledge and understanding regarding the factors that are influencing athletes' junior-to-senior transition within the context of British Athletics, and more importantly, what support and resources can be provided to facilitate a successful transition. Exploring the junior-to-senior transition from a sport-specific perspective (e.g., British Athletics), will not only advance the knowledge of transition within this specific context but will advance transition knowledge as a whole as it

can help identify differences in factors that influence the transition across different sporting contexts. Study one in the thesis highlighted many factors across a range of sports that were perceived to influence the outcome of the junior-to-senior transition; it is possible the particular sport may be more prone to specific challenges or may need access to specific resources during this process. In sports such as football, a player may face the challenge of having to transfer and move to a new club to make the transition into the senior team (Morris, 2013); whereas in sports such as tennis, or athletics, athletes would not experience the same demands during their transition into the senior ranks.

Previous literature has explored athletes' perceptions of the factors associated with the junior-to-senior transition (Alge, 2008; Hollings, 2014; Pummell, 2008; Pummell et al., 2008; Stambulova et al., 2017). However, currently, no studies have focused exclusively on the perceptions of British track-and-field athletes. While the second study of the thesis identified a large number of athletes who were not able to make the step up into senior sport, it is essential to explore athletes' perceptions of the transition from the perspective of both a successful and unsuccessful transition outcomes. To develop a more complete knowledge of the transition, understanding the factors that can influence both a successful and unsuccessful transition may help to identify specific factors that are debilitating or facilitative of the transition outcome. Therefore, the purpose of this study was to focus on British track-and-field athletes and specifically;

1. Explore athletes' perceptions of the junior-to-senior transition, identifying factors that were described as facilitative or debilitating towards the transition outcome.
2. Produce a comparison of perceptions of the transition of athletes who experienced a successful transition into senior sport, compared to athletes who did not.
3. Identify intervention strategies that were perceived as facilitating a successful transition into senior sport.

## 6.2 Method

### 6.2.1 Participants

Participants (n=10) aged between 26 and 37 years took part in the study. Participants were all current or retired British track-and-field athletes. In an attempt to maintain anonymity, athletes' specific athletic disciplines will not be identified; however, many athletics disciplines were covered by the participants including sprints, hurdles, middle distance, throwing, jumping and combined events.

Participants were purposively sampled (Patton, 2002) to establish the most appropriate participants to explore the research questions (Arnold & Sarkar, 2015). A sample size of 10 participants was deemed sufficient based on Malterud, Siersma, and Guassora's (2015) notion of informational power – which is used to guide sample size in qualitative studies. Informational power is based upon five dimensions: (a) study aim, (b) sample specificity, (c) use of established theory, (d) quality of dialogue, and (e) analysis strategy. The sample size was deemed appropriate considering that the study aim was narrow and participants held specific experiences and knowledge related to the research area with a strong interview dialogue. Moreover, the study was supported by a strong theoretical background and an in-depth analysis.

In addition to the use of informational power as a justification for the sample size in the current study, a look back at previous literature on the topic area also highlights the current sample as being sufficient. Although 10 participants may appear to be a small sample, a majority of the peer-reviewed research on the junior-to-senior transition has consisted of samples with 10 or fewer participants (e.g., Mills et al., 2012; Morris et al., 2017; Pummell 2008; Pummell, & Lavalley, 2018; Stambulova et al., 2017). Moreover, results from the meta-study showed that the average sample size for all research conducted on the junior-to-

senior transition was 9.5. Therefore, a pre-determined sample size of 10 was in-keeping with previous literature.

As recommended by Parahoo (1997), researchers should estimate the minimum sample sizes they believe would be necessary to answer their research question and reach data saturation, based upon their knowledge of their research area. Therefore, it was believed that interviewing 10 world-class athletes with a wide a range of experiences of the junior-to-senior transition, would yield rich information on the transition, and as suggested by Patton (2002) if saturation was not reached after this point more participants would have been added to the study.

In order to be included in the research participants must have relevant knowledge and experience of the junior-to-senior transition, specifically in the context of British track-and-field and have also experienced either a successful or unsuccessful transition. Participants were approached based upon whether they had experienced a successful or unsuccessful transition from junior-to-senior level. In this instance, as with the previous study, a successful transition was described where athletes had achieved their peak performance within the senior age-group and had gone on to represent the senior Great Britain team at major championships (Olympic Games, World Athletics Championships or European Athletics Championships). On the contrary, an unsuccessful transition was identified where athletes had experienced international junior success by competing for Great Britain at either a World or European u23 championships, but then had not gone on to produce a personal best performance as a senior athlete and had not gone on to represent the senior Great Britain team at a major championships.

In addition to their sporting career, six out of the ten athletes interviewed during the study were now track-and-field coaches, and one athlete was an employee for the national governing body – British Athletics. Therefore, these interviews were extended to further explore their role in supporting athletes through the junior-to-senior transition as a coach and British Athletics employee, respectively.

**6.2.1.1 Successfully Transitioned Athletes.** Five athletes (female =3; male =2) who had experienced a successful transition were interviewed. Four of the five athletes were still competing internationally, whereas one athlete had retired from competitive sport. Athletes were aged between 26 and 32 ( $x = 28$  years). All of the athletes who successfully transitioned have competed at an Olympic Games, a World Athletics Championships *and* a European Athletics Championships, and therefore have a wealth of competitive experience on the world stage. Between the five athletes interviewed they have won medals at the Olympic Games ( $n=3$ ), World Athletics Championships ( $n=4$ ), and European Athletics Championships ( $n=4$ ).

**6.2.1.2 Unsuccessfully Transitioned Athletes.** Five athletes (female =1; male =4) who had experienced an unsuccessful transition were interviewed. These were athletes that were successful as junior athletes but had then failed to go on to progress into the senior age group. Athletes were aged between 26 and 37 ( $x = 30$  years). All of the athletes who unsuccessfully transitioned competed for Great Britain at either a World Junior Athletics Championships ( $n=4$ ) or a European U23 Athletics Championships ( $n=1$ ). One athlete won a gold medal at the World Junior Athletics Championships, with the other athletes finishing 12<sup>th</sup> or better.

## **6.2.2 Procedure**

After receiving ethical approval from the School of Sport and Exercise Sciences, Liverpool John Moores University, initial contact with potential participants took place via face-to-face contact or email. After participants agreed to be interviewed for the study, they were sent an information sheet (Appendix B), an interview date and time was arranged, and data collection began in August 2017, lasting until March 2018. Face-to-face interviews were conducted with nine participants, with one interview being conducted via skype, owing to geographical location. Although face-to-face interviews were preferred to build rapport (O'Connor, Madge, & Shaw, 2008) previous research has highlighted that there is no

difference in quality of responses when interviews are conducted video-call compared to face-to-face interviews. Moreover, Skype has been established as a viable alternative data collection tool for qualitative researchers (Deakin & Wakefield, 2013; Iacono, Symonds, & Brown, 2016). Immediately before the interviews, participants were reminded of the purpose, risks, safeguards, and benefits of the study. Informed consent (Appendix B) was also sought from participants before data collection, who were reminded that all data would remain anonymous and confidential via the use of pseudonyms.

### **6.2.3 Interview**

Due to the exploratory nature of the study, semi-structured interviews were deemed to be the most appropriate method of data collection (Sparkes, & Smith, 2014). Due to the open-ended nature of the semi-structured interview, it allows for a broader exploration of participant's experiences, perceptions, opinion and feelings towards the broader subject area, such as the junior-to-senior transition and allows for a flexible exploration of participants thoughts and feelings towards the transition. Participants must not be constrained by specific questions when interviewing on topics as unique as the junior-to-senior transition, where participants will have vastly different experiences and responses regarding certain factors (Ritchie, Lewis, Nicholls, & Ormston, 2013). The interview guide developed for the study was loosely based upon the previous results from the meta-study (see chapter 4) and focused on enhancing knowledge concerning factors in the following areas: (a) individual facilitators/debilitators, (b) external facilitators/debilitators, (c) cultural and organisational facilitators/debilitators, and (d) intervention strategies. The interview guide can be found in Appendix C.

Before data collection, a pilot interview took place with a current international athlete. The pilot interview allowed the researcher to practice interview techniques for eliciting relevant information from the participants. Based on the feedback from the pilot interview, it

was noted that the researcher needed to ensure enough time was given to participants to reflect on the question following their responses rather than moving on with the next question. The pilot study was also used to confirm that questions were understandable and useful in obtaining information. Following the pilot interview, based upon the feedback from the interviewee, no further changes were made, with the semi-structured interview guide considered appropriate for data collection.

#### **6.2.4 Data Analysis**

All interviews with participants were audiotaped and transcribed verbatim by the primary researcher – this provides a practical and valuable method to become familiarised with the data (Riessman, 1993). Interviews with participants who experienced a successful transition lasted between 53 – 103 minutes ( $x = 79$  minutes), while interviews with those who experienced an unsuccessful transition lasted between 40 – 125 minutes ( $x = 69$  minutes). All interviews were audiotaped and transcribed verbatim to create a permanent record of the discussions in preparation for data analysis.

Following this, thematic analysis was used to analyse the data (Braun et al., 2019). As knowledge on the junior-to-senior transition in the context of British track-and-field athletes is relatively unknown, thematic analysis was adopted as the method of analysis as it describes data collected in rich detail by identifying, analysing, interpreting and reporting themes within the data set (Sparkes & Smith, 2014). The process of analysis employed in the current thesis involves a six-phase approach which is reflexive and recursive, rather than linear (Braun et al., 2019). The six phases of thematic analysis include (a) familiarisation with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) writing up the process. See table 6.1 for a summary of the process.

Table 6.1.

*Phases of Thematic Analysis (Braun et al., 2019)*

Phase	Description of the Process
Familiarisation with the data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, the final analysis of selected extracts, relating of the analysis to the research question and literature, producing a scholarly report of the analysis.

**6.2.4.1 Familiarisation with the Data.** The first phase in the process of thematic analysis involves the researcher becoming familiar with the data. In the current thesis, to become familiar with the data, all audio files were listened to at least once before transcription began. Once transcribed, scripts were read and re-read to enhance familiarity with the data (Braun et al., 2019).

**6.2.4.2 Generating Initial Codes.** The second phase of the analysis involved generating initial codes that appear relevant to the research question. By working through the data systematically, data can be coded into meaningful groups. Segments or quotes in the data set can start to form the basis for emerging themes. In the current thesis, during this phase, the primary researcher worked through the whole data set, giving equal attention to all components, and identified interesting aspects from the data set that may inform future themes (Braun et al., 2019). For example, an initial code identified in this phase was related to financial demands, any subsequent quotes that were associated with this potential theme were coded 'Financial'.

**6.2.4.3 Searching for Themes.** The third phase of the analysis involves sorting and organising codes into possible themes. A theme “captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set” (Braun & Clarke, 2006, p. 82). After generating initial codes during the second phase, the searching for themes begins by reviewing the coded data and identifying any similarities or areas of overlap between codes (Braun et al., 2019). Common themes are then identified and subsequently organised into overarching themes relevant to the research question.

**6.2.4.4 Reviewing Themes.** This phase of the analysis involves the review and refinement of themes identified during the prior phase. This involves quality checking to ensure the meaning is an accurate representation and explore whether the theme works in relation to the entire data set (Braun et al., 2019). During this phase, it becomes apparent that some themes are not themes (e.g., there is not enough data to support the theme), other themes may combine to form one theme, while others may need to be broken down into separate themes, so that it more meaningfully captures the data.

**6.2.4.5 Defining and Naming Themes.** The penultimate phase of the analysis involves defining and refining themes by identifying the essence of each theme. During this phase, data are scrutinised further to ensure there is not a significant overlap between themes and to identify if amalgamation of themes can take place. According to Braun et al. (2019) themes should (a) not try to do too much, (b) be related but do not overlap, and (c) directly address the research question. Also, during this phase of the analysis, the final theme names are considered. Names need to be concise and punchy and ensure the reader instantly grasps the concept of the theme from the name alone (Braun et al., 2019).

**6.2.4.6 Producing the Report.** The final phase of data analysis comprises the writing-up process and begins when the researcher has a full set of themes identified. The

purpose of producing a report or journal article is to provide a compelling story about the data set (Braun et al., 2019). In the current thesis, quotes are embedded within the text to add a narrative to the themes identified. These quotes ensure that the write-up goes beyond the description of the data. Additionally, ellipsis points indicate the removal of utterances or discourse markers (e.g., um, er) from participants quotations took place to enhance the clarity and readability of the final report.

### **6.2.5 Credibility of Research**

Qualitative research cannot be judged in the same way as traditional quantitative research, therefore in an attempt to enhance the quality of the current thesis, I have used several criteria outlined by Smith and Caddick (2012) used for judging qualitative research (e.g., substantive contribution, impact, coherence). Therefore, I would like the two qualitative studies in the thesis (studies 3 and 4) to be judged on the following criteria: width, credibility, transparency, and sincerity.

**6.2.5.1 Width.** Width represents the comprehensiveness of evidence provided to support the research findings (Smith & Caddick, 2012). Width refers to the quality of the interviews conducted and the following interpretation and analysis. Numerous quotations have been provided throughout the thesis to help the reader to understand the interpretation and conclusions drawn from the data. For example, themes identified during data analysis have been supported with a direct quotation to help the reader understand the interpretation of the data and the conclusions drawn.

**6.2.5.2 Credibility.** Credibility refers to the trustworthiness, and plausibility of the research findings (Tracy, 2010). The term trustworthiness has been used by qualitative researchers to describe methods used to enhance quality and rigor in their research (Sparkes & Smith, 2014). A number of steps were taken in this thesis to enhance credibility.

First, triangulation in qualitative research suggests that if two or more researchers agree on the same conclusions, then the conclusions are more credible (Tracy, 2010). Within the current thesis, the process of triangulation involved the author and the supervisory team reviewing the initial codes and themes generated during each phase of the data analysis. Regular debriefing meetings took place with the members of the research team to discuss and debate methods of data analysis and the interpretation of the data and the identification of themes.

Second, member reflections involve “taking findings back to the field and determining whether the participants recognise them as true or accurate” (Lindelöf & Taylor, 2002, p. 242). With regards to studies 3 and 4, following transcription, participants were sent a copy of their transcript to allow them to amend their transcript or offer clarity if they felt they had been misrepresented or misheard - none of the participants wanted to amend their transcripts. Another form of member checking that was used to gain credibility involved the verification of themes and interpretation of participants responses. Following the data analysis, a one-page summary of the themes that emerged from their interviews was sent to participants, allowing them the opportunity to offer feedback, affirmations, and verify the interpretation of their responses to the research question. It is possible that during data analysis comments and meanings may have been misinterpreted by the primary researcher; therefore, this was seen as an opportunity for elaboration, affirmation, and disagreement, to enhance credibility of the researchers’ interpretations (Smith & Caddick, 2012).

Additionally, by providing thick descriptions of the data credibility was also enhanced. Tracy (2010) advised researchers to convey sufficient detail in order for the readers to draw conclusions from the data, rather than telling the reader what to think. Throughout this thesis, a detailed description of the phenomenon and the context that surround it have been provided. Results presented offer an in-depth illustration of the data;

thick descriptions have been provided with direct quotes from all participants. For example, in study 3, a detailed description of the research question, participants information, the sport-specific context, and the subsequent results have been provided, which should allow readers to have a greater understanding of the underlying context and data supporting the themes and conclusions.

**6.2.5.3 Transparency.** Transparency refers to honesty about the research process (Tracy, 2010). To help ensure transparency, the researcher should be explicit and honest about the processes of data collection, data analysis, and theory generation, to allow for quality assessment (Smith & Caddick, 2012). In an attempt to achieve transparency in the current thesis, the methods have been described extensively, this allows the reader to assess the extent to which appropriate research practice has been adhered to.

**6.2.5.4 Sincerity.** Sincerity means that the research is permeated by honesty and transparency about the researcher's biases, ambitions, and shortcomings (Tracy, 2010). Researchers should be self-reflexive to achieve sincerity by being "introspective, assessing their own biases and motivations, and asking whether they are well-suited to examine their chosen sites or topics at this time" (Tracy, 2010, p. 842). To maintain transparency and sincerity, it is necessary to identify that I am an insider to the research, sharing commonalities and characteristics with the participants in the current thesis.

My background as an international athlete who has competed for Great Britain at a senior level in track-and-field is one of the reasons why I believe this research on the junior-to-senior transition is so pertinent. I was not an elite junior athlete by any stretch of the imagination. As a young athlete, I would identify myself as an 'also-ran' and did not come close to making any junior international teams. As a senior athlete, I continued to progress and found myself making several Great Britain teams. It is through these experiences and competing in track-and-field for over 15 years; I found myself wondering, "whatever

happened to...?”. With this in mind, I was interested in understanding what happened to those athletes who were comfortably beating me ten years ago and were tipped to be the next ‘big thing’. Specifically, I was interested in exploring the junior-to-senior transition to understand the reasons why some athletes can successfully transition into the senior ranks and others could not.

My background in track-and-field has given me access to some of the best senior and junior athletes ever produced in Great Britain, allowing the collection of rich data from athletes who have a wide range of experiences and successes. In saying this, despite the use of the above techniques (e.g., width, credibility, transparency), I acknowledge that the findings from the thesis may reflect my own biases, influenced by my own experiences in sport. For example, I may have been able to relate to some of the information and stories participants were sharing with me (e.g., experiencing a similar injury) that meant I was able to build a better rapport with that participant. Patton (2002) suggests that the researchers’ experiences will influence the interpretation of qualitative research, but by acknowledging and identifying them, the readers have the opportunity to understand the interpretation of the results. Although there should be careful consideration taken when interviewing participants as an insider as it can lead to a loss of objectivity (Unluer, 2012), I felt it was a particular strength of the thesis as it allowed for a richness and depth of data due to the already established rapport, a greater understanding of the culture and the topic being studied, and shared collective identity and language with the participants (Asselin, 2003; Unluer, 2012).

### **6.3 Results**

The analysis of interviews conducted with athletes who had experienced a successful junior-to-senior transition resulted in the generation of 23 higher-order themes, whereas those who experienced an unsuccessful transition resulting in 25 higher-order themes being identified. Results are presented as facilitators and debilitators to the transition that represent

the four overarching categories (i.e., individual, external, cultural and organisational factors and intervention strategies).

### **6.3.1. Individual Facilitators**

Data analysis identified six higher-order individual factors that were perceived to be facilitative by athletes who had a successful junior-to-senior transition (see table 6.2). The six individual facilitators were (a) psychological factors, (b) achieving a life balance, (c) learning from championship experiences, (d) having clearly defined goals and progression, (e) developing sport specific knowledge, and (f) developing competition coping strategies.

Whereas, athletes who experienced an unsuccessful transition identified two individual facilitators (a) psychological factors, and (b) natural ability.

**6.3.1.1. Psychological Factors.** Both athletes who were successful and unsuccessful in their attempts to negotiate the junior-to-senior transition identified psychological factors that they perceived aided their transition. First, athletes who experienced a successful transition outcome identified six psychological factors that they perceived to facilitate the junior-to-senior transition (a) determination and commitment, (b) resilience (c) work ethic, (d) patience, (e) confidence, and (f) intrinsic motivation.

Several successful athletes spoke about the need to demonstrate determination and commitment to their sport. One athlete in particular reflected on their determination and resilience, particularly how this had helped them when attempting to return from injury that kept them out of the 2008 Beijing Olympic Games:

In 2008 I was devastated, and I was like, why is this happening to me and I got really down about it, but then in the next instance I would think, right what do I need to do? I need to do this and I need to do that, I need to do all my rehab exercises, I need to be really focused and if I can do everything right, then maybe I can get back, but I never

Table 6.2

*A Cross-Sectional Comparison of Individual Facilitators and Debilitators Perceived to Influence the Junior-to-Senior Transition.*

	<b>A successful transition</b>	<b>An unsuccessful transition</b>
<b>Individual Facilitators</b>	Psychological factors	Psychological factors
	<i>Determination and commitment</i>	<i>Patience</i>
	<i>Resilience</i>	<i>Resourcefulness</i>
	<i>Work-ethic</i>	Natural Ability
	<i>Patience</i>	
	<i>Confidence</i>	
	<i>Intrinsic Motivation</i>	
	Achieving a life balance	
	Championship learning experiences	
	Clearly defined goals and progression	
<b>Individual Debilitators</b>	Sport-specific knowledge	
	Competition coping strategies	
	Psychological factors	Psychological factors
	<i>Increase in pressure</i>	<i>Loss of motivation</i>
		<i>Increase in pressure</i>
		Competition behaviours
		<i>Negative mindset</i>
		<i>Unprepared for senior competitions</i>
		<i>Did not cope well with losing after junior success</i>
		Sacrifices did not seem worth it
		Sport is more serious as a senior
		Exclusive athletic identity
		Unrealistic expectations of the transition period and progression
		Mental health concerns

ever felt that I wanted to give up, that was never a feeling of argh that's it for me, I was just so determined to come back.

Athletes who had a successful transition also described the need to have a good work ethic when it comes to their training, with one athlete saying, "Work ethic. I don't class myself as talented, actually that is a lie because my talent is my work ethic, and to me that is more important". Another athlete spoke about the need to have a good work ethic throughout the transition, but also spoke about the need to be patient during this process:

Someone is not going to tell you something and suddenly you are the best thing in the world, you have always got to work, you have to work on everything, like I said its step by step and not trying to rush things, not expecting yourself to be ten years down the line when you are only three years into training.

Another athlete reflected on the importance of being patient during the junior-to-senior transition and suggested some junior athletes expect senior success to follow shortly after junior success, which is not necessarily the case:

I think just being able to have the patience is very difficult, and that is why I feel that a lot of people struggle because they want to go from winning at a junior level to winning at a senior level too fast.

Likewise, athletes who experienced an unsuccessful transition outcome also identified patience as an important psychological attribute necessary during the transition phase.

Athletes highlighted the need to be patient during the transition and remain committed to their sport even if initial progress was minimal, as stated by one athlete, "have a plan, get yourself a coach in the right environment, and just be patient, let it happen. Even if you don't make progression initially, just stick at it". Similarly, another athlete explained:

I've always kind of known that, when you go into a new age group, you've just got to be patient and that's what I expected, going up to seniors, but the hardest thing is

when you're patient, and maybe you don't see that, in the next few years, you don't see the progression and it's frustrating.

Athletes who experienced an unsuccessful transition also identified resourcefulness as a psychological factor that has the potential to facilitate their transition. Athletes described the need to seek out the solutions to the challenges experienced during the transition and be willing to try something new. One athlete stated:

You've got to be quite resourceful as an athlete. I think a lot of it, at the end of the day comes down to yourself, and how you deal with things, and how you respond to things. I'll always be quite resourceful. If something wasn't working, I'd go out and try something different I would try a new coach, try a new method or a new technique. I wasn't afraid to try things. I think that's what you need to be as an athlete.

**6.3.1.2 Natural Ability.** Athletes who were unsuccessful in transitioning into senior sport identified one further individual facilitator that had the potential to aid their transition which reflected their natural ability. A number of athletes perceived that they had a natural ability and highlighted their early success in their sport career. One athlete describes:

... it came so natural, I just picked it up – so I didn't even have to train – I didn't train! I was doing it once a week. Once, twice a week and I was really good at it, winning English Schools, I was like “This is easy – this!!”

Another athlete in the study reflected on their early success:

It came quite natural to me. I think when I was 16, I had a first proper good season, I won every competition I was in and all the age group stuff then...yeah and then the Commonwealth Youth games in December.

However, having a natural ability was not a factor identified by any of the athletes who successfully made the transition into senior sport. Athletes who were successful,

identified a further five individual facilitators that aided their transition that were not recognised by those who were unsuccessful. (a) achieving a life balance, (b) championship learning experiences, (c) sport-specific knowledge, (d) clearly defined goals and progressions, and (e) competition coping strategies.

**6.3.1.3 Achieving a Life Balance.** Achieving a life balance refers to athletes being able to successfully balance a number of different areas in their lives, such as: sport, work, social life, education, and family. One athlete described the importance of having a life outside of their sport and purposely enjoyed themselves while they were a young athlete:

I think I made a conscious effort to still enjoy my teenage years, you know with friends and doing different things. But still trying to maintain some focus on my training. I had a life outside of athletics and that for me, that was really important.

Another athlete said:

You need an escape and too often people do it where they go “right if I commit everything to athletics it will happen” and so on and then they become miserable and they don’t get performances because of pressure, so I think that is a huge one you have got to make sure you have a balance and not just focus on athletics.

Another athlete reflected on the reasons why a number of junior athletes they knew failed to make the transition into senior sport and suggested that having an exclusive athletic identity causes too much stress and pressure. One athlete said:

You need to have something outside the track. Too often people, and this happens all the time, people graduate, and they say, “Oh I am going to focus completely on athletics this year because that will make me a Champion” and then it all goes tits up because they have no alternative in their lives and there is too much pressure and stress.

**6.3.1.4 Championship Learning Experiences.** Another individual factor that was

perceived to facilitate the junior-to-senior transition was learning from previous championship experiences. Athletes' reflected on competing at championships all the way from junior-to-senior level and described these experiences as facilitating their learning for competing at senior championships. One athlete said, "I think every experience that I have had at championships has helped along the way, and I think having those experiences at a younger age, whether they are positive, or negative are only going to help you." Similarly, another athlete stated that they were always learning and gaining experience throughout their career, even competing on the biggest stage of all – "All these championships, even now, even still at the Olympics, I am still learning, still gaining experience from everything, and that's what makes you a better senior athlete."

**6.3.1.5 Clearly Defined Goals and Progression.** Athletes suggested that having a clearly defined goal and a plan of progression for the transition period helped them to continue to improve into senior competition. One athlete spoke about always having a goal to progress and improve – "Every year there has always been a goal to move forward, I have never just been cruising". Athletes spoke about setting a specific target to work towards during the transition. One athlete said:

I've put a lot of thought into it, I haven't just kind of done athletics and hoped it got better, you know what I mean. I have 100% had a target, I wanted to throw this distance at this age. I usually set a target that I haven't done before.

Similarly, another athlete reflected on needing to clearly identify what it is going to take for them to get to where they wanted to as a senior athlete:

You need a clear view of what is required for you to make, you might not be right, but you at least need a clear view of what is going to make the difference between where you are now, what's going to take you to the top, and that's what I did.

**6.3.1.6 Sport-specific Knowledge.** Athletes' sport-specific knowledge can be an individual facilitator during the junior-to-senior transition. Sport-specific knowledge may include technical, tactical, and competitive knowledge, and a general understanding of your athletic discipline. One athlete emphasised that during their younger years they spent time learning how to compete and developing their race-craft which had a positive influence on their performances as a senior:

Learn your race craft, learn how to race and compete, learn how to go to competitions, whether that is run jump or throw, not just runners. I just learnt how to compete. I think in 2007 I won every single championship right up the way through to English schools international, I didn't get beaten at all, but that was just purely because I learned my race craft and that took me all the way through to the senior champs.

Another athlete spoke about how they used their performances at junior championships to develop their knowledge of their event whilst identifying their weaknesses, stating – "I learned that I had a really crap event but that's what it's about isn't it? You use those experiences to understand your event better, your knowledge of the event grows".

**6.3.1.7 Competition Coping Strategies.** One final individual facilitator that was highlighted by those who experienced a successful transition was competition coping strategies. A number of athletes identified that they had developed coping strategies throughout the transition to manage their nerves and anxiety prior to an important competition. One athlete spoke about feeling anxious before competing at the Olympic Games and used positive self-talk as a coping strategy during the competition, stating:

I was just so anxious and just upset because I just knew how important it was. I would never have an opportunity like that, and I tried not to let myself think about things

going wrong and just tried to stay positive and have positive thoughts, but it was, yeah it was really, really nerve wracking.

Other competition coping strategies that athletes used when approaching senior championships included visualisation and imagery. Many of these coping strategies had been developed from a junior age and were used to facilitate performances at senior competitions. One athlete described using imagery in preparation for competitions:

I would always, even since I was a junior, the night before the competition I'd go over all the events in my head, just keep going through the perfect performances and then wake up the next morning just wanting to start.

### **6.3.2 Individual Debilitators**

Athletes who experienced a successful transition identified one individual debilitator which reflected an increase in pressure they perceived when moving from junior-to-senior level. On the contrary, athletes who failed to transition identified 10 individual debilitators.

**6.3.2.1 Psychological Factors.** First, both athletes who were successful and unsuccessful in negotiating the transition identified an increase in pressure when moving from junior-to-senior level. This increase in pressure was perceived as having the potential to have a negative influence on the transition outcome. One successful athlete reflected on a difficult year during the transition period and recognised there was a lot of pressure on performances at a senior level compared to junior competition:

I think I just struggled that year with different things, but I don't know whether it was because I moved from a junior to a full-blown senior, I think but it is a lot of pressure, once you come out of juniors it's like, okay now what you going to do? How are you going to perform?

Another athlete in the study spoke about an increase in pressure on athletes who have had a successful junior career to replicate this at a senior level. One athlete said:

I definitely think when you perform well as a junior people are looking at you to do something and when you do it as a junior, you feel like the next stage is to do it as a senior and the pressure becomes a lot.

Finally, another athlete who was unsuccessful in making the transition, spoke about the pressure that had built up during their career which meant they had to take a break from the sport:

There was about a three-week period in about August 2016, after having had been a senior and the kind of pressure which had built up and built up and built up to the point where I was just like, I cannot do this anymore and I had to step away from the sport.

Another psychological debilitator identified by athletes who had experienced an unsuccessful transition from junior-to-senior sport was a loss of motivation during the transition period. One athlete made the decision to retire from their sport because they had lost their motivation to train, stating – “In the end, it just sort of fizzled out, it genuinely was as simple as that. I lost motivation to train”. Another athlete makes a similar reflection, “I almost felt as if I was trying to prove everyone wrong – that you could do it on a shoestring, you know, but I lost – I completely lost motivation”. Finally another athlete highlighted experiencing a loss of motivation when going through a decline in their performance and questioning if they would achieve the same level of success as they did as a junior, stating – “It is very easy to become demotivated when you just feel like, you know, you used to be so good and you are never going to be that good again”.

In addition to the two psychological debilitators identified, athletes who were unsuccessful identified a further eight individual debilitators, none of which were identified by athletes who were successful. These eight individual debilitators were categorised into the following six categories; (a) competition behaviours, (b) sacrifices did not seem worth it, (c)

sport is more serious as a senior, (d) exclusive athletic identity, (e) unrealistic expectations of the transition period and progression, and (f) mental health concerns.

**6.3.2.2 Competition Behaviours.** Unsuccessful athletes suggested that there were a number of competition behaviours that they had developed that they perceived had a negative influence on their transition into senior sport. Competition behaviours is made up of three lower-order themes including, (a) negative mindset, (b) unprepared for senior competitions, and (c) did not cope well with losing after early success.

First, a number of athletes who were unsuccessful in their transition suggested that they would often approach senior competitions with negative mindset:

I was just Mr. Consistent – because I was always worried that if I went to an event, I wasn't focused on trying to throw as far as I can, I was focused on not throwing like an idiot and that was my thing. I didn't focus on trying to throw as far as I can to win it – to win! I was focusing on not throwing badly ... it's a different mind-set.

Another athlete reflects on a similar experience, stating they had a negative focus going into competitions due to not wanting to let other people down:

Now I look back and reflect, that's what was going wrong with my performance. I was too focused on all the negative stuff going into a comp because I didn't want to let down the coach who told me I was going to be an Olympian, and my mum or my dad who would be driving me everywhere.

In addition, unsuccessful athletes suggested that they felt underprepared for senior competitions when transitioning from a junior-to-senior level, with a number highlighting their first important senior competition came as a shock to them. One athlete reflected on their experience of competing at the Commonwealth Games:

I was in really good shape. So, I went completely expecting to do well, and then I got there, and I was like "Jesus Christ!" You know, I wasn't – I was not prepared for the

severity of the competition. My coach hadn't prepared me ... I wasn't prepared to deal with the pressure. I got there and I was like almost – I wouldn't say I was panicking – I was like “Jesus! I've got to compete!” I was really like stressed about it, and I'd never been in that situation before.

The final lower-order theme refers to athletes' inability to cope with competition losses after experiencing success early on in their athletic career. One athlete describes not knowing how to cope with failure or losing – “I'd not learned how to deal with failure, because ... I'd competed for like 3 years and I'd never lost”. Another athlete described not being prepared to be beaten in competitions after their junior success, which they found difficult to cope with:

People were blowing smoke ... I couldn't deal with the notions of it because I'm supposed to be amazing, and I was getting beat. So, I wasn't prepared for, I don't think mentally, for being able to cope with that, you know – so I was getting beaten at competitions and I really did take it hard.

Another reflected on the difference of being one of the best junior athletes in the world to falling a number of places in the senior rankings:

You're suddenly going from being at the top of your age group, up there in the world to suddenly back down. So, you've got to get back to work. And some people get a bit shell-shocked, and you lose a lot of people there because if the events quite saturated with people, then you're screwed really! You're suddenly 8 or 10 places further down in the rankings and you're not going to mix with anyone.

**6.3.2.3 Sacrifices Did Not Seem Worth it.** All athletes who were unsuccessful in negotiating the transition, perceived the sacrifices they were making to try and succeed in their sport was not worth it, and in most cases resulted in their retirement from the sport. One

athlete described their personal story of trying to support themselves to become a world-class athlete:

When I finished my degree, I was working crappy jobs, I was litter picking at a gym and stuff. I was a Commonwealth Games athlete with a degree in sport science and I'm picking litter up in a car park at half past five in the morning. It's like "What am I doing here?" and I couldn't see a way out of it. I couldn't...when you had to throw 72 metres to get funding which was twelve grand a year. Like who can support themselves off twelve grand a year? So, in the end I was like "This is just not worth it!" the cost – the weigh up of me having to throw these unrealistic performances and the reward that you get for doing that.

Another athlete struggled through the transition years, mainly due to injury and limited organisational support, which impacted them psychologically, and therefore they did not believe the sacrifices they made for their sport was worth it:

It's still shaped me how I am now but, I am coping better with it now, but if I had the choice of those three [transition] years and being told that was going to happen when I started athletics, I would have never gone to the track.

Athletes discussed the sacrifices they made by committing to their sport which they perceived to have a negative influence on their life outside of sport. One athlete stated:

To come out with nothing, you've ultimately not achieved what you wanted to achieve. Yeah, you might have done stuff on the way, but you know you've not achieved your goal, and, if anything, you're 10 years financially behind your friends and it's affected your career, and that could affect you for life.

**6.3.2.4 Sport is More Serious as a Senior.** Athletes perceived the sport to become more serious, and less fun at a senior level compared with junior sport. One athlete suggested:

I think once you are a senior you just feel like okay I have got no excuses now, it's all a bit more serious, whereas like when you are a junior or under 23 you can be like, oh yeah well, I am doing this, but I am still only an under 23 ...

**6.3.2.5 Exclusive Athletic Identity.** All athletes in the study made reference to their athletic identity, specifically suggesting that having an exclusive athletic identity could hinder their progression through the transition. Athletes also emphasised the importance of developing alternative identities away from their sport. One athlete reflects on having an exclusive athletic identity at a young age:

Don't just put all your eggs in one basket. You know and that's don't just be an athlete – not at a young age, because I was a full-time athlete when I was 16 and 17, I had nothing else, and it was wrong. I shouldn't have done it at that age. I was too young.

Another athlete described how they experienced a loss of identity during their transition years after having a serious injury – “It is a massive loss of identity. Well even like, Paul Gascoigne or whatever. Once it is taken away you don't know what to do, because that is what you have done your whole life”. Similarly, another athlete highlighted the importance of athletes developing another identity:

I didn't manage it but that's my advice. It's always about... you need to have a plan, you need to have a degree, you need to have something else in your life. Even if it's just to get away from it, you know... another identity.

**6.3.2.6 Unrealistic Expectations of the Transition Period and Progression.**

Athletes described having unrealistic expectations of the transition period and their progression as being a potential debilitator to the transition outcome, with one saying:

As a junior everything happens so quickly, you improve quickly, and you change age groups so quickly and you change expectations so quickly and the qualifying times

you are aiming for change so quickly. You just expect things to happen on a very quick kind of turnaround and then, you know your senior years it could be like 10 years, it could be 15 years before you improve, and so it is difficult to make that transition in your head of how, over what time period you are expecting progress.

Another athlete described that having expectations of senior success following quickly after junior success is unrealistic:

I think there is this want to take it very serious very young and they are allowed to by their coach and parents and I think there are the people who do very well and then have that immediate expectation to then think that their like senior success is just around the corner but that not reasonable, it doesn't work like that.

**6.3.2.7 Mental Health Concerns.** The final individual debilitator reflected the athletes mental health and the influence this was having on their attempts to transition. One athlete spoke about feeling depressed by their career not progressing as they had expected during the senior years:

I think I was probably a little bit depressed at the time – I probably was a bit depressed, yeah because I put on weight – and it sounds stupid – but I'd put on weight. I'd lost – I wasn't really good at [athletic event] anymore. I was just really – I was an average elite athlete – not even an elite ... really, I was an amateur athlete that was good at it, but I wasn't world class. And I didn't really have a direction about what I wanted to do job-wise – I was really depressed. So, I was going out getting pissed – I was drunk all the time and enjoyed it! So, looking back at it, I probably was a bit depressed about it all.

Another athlete describes their struggles with obsessive-compulsive disorder that intensified when under pressure from their sport:

I've got OCD, but when I was struggling, I think, when I look back, I'm a bit odd with obsessive compulsive things, but when I was under pressure, that was really rife – it was really bad, you know and I was doing ridiculous things – like, you know, turning the lights on and off, and just bizarre things – tv volumes, it's how I dealt with the stress and pressure.

### **6.3.3 External Facilitators**

The analysis identified a number of external facilitators that athletes perceived to have a positive influence on their transition into senior sport (see table 6.3). Both athletes who were successful and unsuccessful identified (a) World Junior Championships experiences, (b) social support, and (c) financial support as external facilitators.

**6.3.3.1 World Junior Championships Experiences.** Athletes who successfully and unsuccessfully transition described positive learning experiences from competing at the World Junior Championships in athletics. Both groups of athletes believed the World Junior Championships helped to prepare them for senior competitions and was a useful steppingstone for future senior international championships. One successful athlete described the World Junior Championships as an opportunity to get used to the international competition environment and gain experience competing on national teams:

Yeah, I think you have just got to take all the opportunities you can get on those teams and really gain experience from there. Because, my first World Youth Team like, I had no idea what was going on I didn't throw very well but it was like I had no idea what was going on, and after that it gets easier kind of, well not easier but like, you get to know the routine better.

Table 6.3

*A Cross-Sectional Comparison of External Facilitators and Debilitators Perceived to Influence the Junior-to-Senior Transition*

	A successful transition	An unsuccessful transition
External facilitators	World Junior Championships experiences <i>Motivated them to pursue athletics career</i> <i>Prepared them for senior championships</i>	World Junior Championships experiences <i>Increased confidence</i> <i>Prepared them for senior championships</i> <i>Fun</i>
	Social Support <i>Parents</i> <i>Coach</i> <i>Training partners</i> <i>Peers</i> <i>Physiotherapist</i> <i>Medical support</i> <i>Family members</i> <i>Sport psychologist</i>	Social Support <i>Parents</i> <i>Partner</i> <i>University</i>
		Financial support
		Positive training environment <i>Modelling successful senior athlete/training partners</i> <i>Developed technical proficiency</i>
	The coach <i>Trust in coach</i> <i>Coach planned for the long-term</i>	
	Early exposure to senior environment	
	Early senior success	
	Financial support	
	World Junior Championships experiences <i>Increase in pressure to performance as a senior</i>	World Junior Championships experiences <i>Increase in pressure to performance as a senior</i>
	Financial pressure	Financial pressure
External debilitators	Injuries	Injuries
		Over-trained as a junior/ Burnout
		Increase in qualification standards from junior-to-senior
		The coach <i>Relationship changed during transition</i> <i>Change of coach did not work</i> <i>Lack of quality coaches</i>
		Lack of facilities

Athletes who successfully transition also discussed that competing at the World Junior Championships was a motivator to continue on in the sport and pursue a career as a professional athlete. One athlete described the experience of winning the World Junior Championships and how that motivated them to see if they could achieve something as a senior athlete:

Yeah, so after I won World Juniors that was really like, okay I think could do something in this sport, as a senior. I love going on teams and being in that environment, I just love it, so that really spurred me on.

On the other hand, one athlete suggested that they used their underperformance at the World Junior Championships as a motivator in their senior career to make sure that they would not repeat that experience:

I kind of used it as motivation because I didn't perform how I wanted to and I felt that I had to, I felt that I was better than that then, I remember being "oh well I am not going to let that happen again" and I just carried that through really.

Athletes who were unsuccessful in making the junior-to-senior transition discussed two further external facilitators in regard to the competing at the World Junior Championships. Athletes highlighted the World Junior Championships (a) had a positive influence on their confidence and (b) was an enjoyable and fun experience. One athlete discussed the confidence boost they perceived after competition at the World Junior Championships:

[World Juniors] was quite a positive thing. It definitely gave me a massive confidence boost in terms of where I could go and definitely massively increased my expectations of myself going forward which, I don't know could be a positive thing could be a negative thing.

Another athlete who reflected on the experience as fun and enjoyable stated:

I don't know what it is like for athletes who have had a successful senior career but, a lot of people say that the junior champs are the best ones because they more fun.

You're just working on an upward curve when you are a junior a lot of the time aren't you, so you're loving it, well that's what I think.

**6.3.3.2 Social Support.** Social support was an external facilitator discussed by athletes who had experienced a successful and unsuccessful transition into senior sport. Athletes who successfully transitioned highlighted eight key individuals who were a source of support to them during the transition, including: (a) parents, (b) coaches, (c) training partners, (d) peers, (e) physiotherapists, (f) medical support, (g) family members, and (h) sport psychologists. On the other hand, athletes who unsuccessful transition identified three sources of support which were (a) parents, (b) partners, and (c) their university.

Parents were an important external facilitator during the transition for all of the athletes within the study. One athlete discussed that their parents provided them with support and did not place to much pressure on them:

My parents were just kind of supportive and no pressure and, I mean there obviously were days where they would be like, right, you have got to train, you have got to knuckle down a bit, but you've still got to enjoy your life as well.

Another athlete suggested that it was important that they had a supportive family around them and highlighted that it was particularly crucial to have a partner who understood their life as an athlete. This athlete stated, "Family and the people around you have to understand what you do and especially your partner. It's a different world being an athlete and if your partner doesn't understand, the relationship is not going to work".

The coach was seen as a crucial source of support during the transition only by athletes who successfully transitioned into senior sport. One athlete relied on their coach for

esteemed support and perceived their coaches belief in their ability had a positive impact on their confidence:

He [coach] has always believed in me, and I think that for me is massive. That no matter what, he has always believed in what I can do. And I think that is, that for me gives me the confidence when I go to race, I am fine. And I like that.

Athletes who were successful also identified sport psychologists as an external facilitator which they perceived to aid the transition process. Athletes stated that it helped being able to talk to someone, such as a sport psychologist – “psychology support is important, just having someone there and knowing that the support is there”. Athletes also highlighted that it was important to have a sport psychologist to talk to about the pressure you experience as a junior athlete. One athlete stated:

I think that the support of either a psychologist or something like that is really beneficial, because of the pressure you put yourself under as a junior, I think you have to put it in perspective a little bit and learn how to deal with it. That is what I have learn a lot now.

On the other hand, athletes who were unsuccessful identified their partner as an importance source of tangible and emotional support, stating:

I started living with [girlfriend] and she gave me a bit of stability and a bit of support, emotionally and you know, so when I was struggling in sport and things, living with her helped, because that was the first time we were both working, and I could come home and the tea was cooked, little things like that. I don't want to sound like an absolute pig, but it's nice to come home and someone's made your dinner for you, just little things like that.

**6.3.3.3 Financial Support.** The final external facilitator that both athletes who were successful and unsuccessful identified was financial support. Financial support was useful in

ensuring athletes were able to concentrate on their sport and their training. One athlete described the funding they received from the national governing body was used to facilitate their training, “the money that you do get, the little amount we got meant I got through the year and I was able to train but without that, I wouldn’t have been able to do that”. Another successful athlete spoke about the financial support received from other sporting organisations:

I had always been on funding so, I had always got a bit of support like medical and stuff, those were the big things that helped. Mum and dad didn’t have a lot of money to chuck at athletics for me so having those little bits of financial help like Sports Aid and stuff, that did make a big difference.

As well as being a source of emotional support, athletes also identified parents as a source of financial support, with athletes having to rely on their parents to financially support them through the junior-to-senior transition. One unsuccessful athlete stated:

My parents aren’t the richest people in the world, but they supported me. It’s only now when I look back at it, I think “Bloody hell, I don’t know how my mum and dad did that!” But that’s the financial side of it as well, you know and not many people are lucky enough to have that. Um, I certainly wouldn’t have done the things I did if my mum and dad didn’t invest that time in me, but not every kid has got that opportunity

Athletes who successfully made the transition into senior sport identified a further three external facilitators; (a) the coach, (b) early exposure to senior environment, and (c) early senior success.

**6.3.3.4 The Coach.** In addition to identifying the coach as a crucial source of social support, athletes also perceived that (a) having a trust in their coach and (b) having a coach who planned for the long-term were external facilitators during the transition. A number of athletes describe the importance of trusting their coach to be able to support and develop

them through the transition. One athlete highlighted that they have a trusting coach-athlete relationship that has been developed over a number of years:

I have complete faith and trust in exactly what he does, I don't question anything because I am still coached by him now. It is that relationship I have built over what? 8 years now that has helped me. He's probably sick of me I suppose. Pestering him every day, but you build that relationship year by year, and I have never doubted anything he has given me or done.

Athletes also discussed the importance of having a coach who was able to plan for long-term success to achieve their peak-performance in the senior years. One athlete reflected on a finishing outside the medals at the World Junior Championships, and speaking to their coach reminded them that senior success was their goal:

I rang [my coach] after my race being upset, and he said to me, I remember he sent me a lovely text, he said you have just finished 6<sup>th</sup> in the world, it is a fantastic achievement, but this is the start of the beginning of a long journey for you and it's not all about the here and now.

Another athlete who experienced a successful transition, reflected on their coach's ability to plan for long-term success by planning their training and development a number of years in advance:

He has always coached me like this, his focus is on long term planning and he would give me programs, well not an actual program but an outline for the next 5 years or something. He would always be planning for the senior years, that was always the aim, he was always focused on that.

**6.3.3.5 Early Exposure to Senior Environment.** Successful athletes also identified having exposure to the senior sporting environment earlier in their career was an external facilitator to the junior-to-senior transition. This external exposure was primarily created

through competing in senior competitions before reaching the senior age-group, and training alongside senior athletes from a young age. One athlete stated that their coach had exposed them to the senior environment by entering them in senior competitions when they were a junior athlete. This meant the junior-to-senior transition did not seem like a big jump to them:

When I started training with him [coach] and doing hurdles and stuff he got me doing the senior hurdles straight away, so it never felt like a massive jump to seniors for me because I think he'd always prepared me for seniors. I had race against some of the senior girls while I was a junior. I would do some senior competitions. At the county champs he'd just enter me in the seniors and I'd just do that, so it never, ever felt to me like it was a big turning point.

Another athlete reflected on being exposed to the senior environment through their training group and their coach:

I was exposed to seniors and going into that environment you are a little fish.

Suddenly you are in an elite group, with world-class athletes. I also had a coach who has had 80 something global medallists so suddenly I am in that senior environment every day and my transition came within that.

**6.3.3.6 Early Senior Success.** Finally, successful athletes indicated that they had achieved a level of senior success early in the transition phase, which they perceived facilitated the transition. A number of the athletes described this success as being selected for a senior championship early in their career. One athlete spoke about their selection for the senior World Athletics Championships when they were 19, and used this opportunity to gain experience of the senior environment for future championships:

When I was 19 and when I won the European under 23's, I had never been to a senior majors so we decided to go to the World Championships because I had qualified but it wasn't in the plan, but we went to the Worlds because then next was the Olympics

and it was to expose me to that level. So, they wanted me to go to World Championships, to at least be in the environment so that at the Olympics I was ready to go.

For a number of athletes, the Commonwealth Games was their first experience of a senior international championships following their junior years. One athlete spoke about the Commonwealth Games coming at the right time between their junior and senior career, “that competition [Commonwealth Games], it was just at the right time for me, the right level, where I was able to just raise my game enough”. One athlete spoke about winning a medal at the Commonwealth Games at the age of 20. This early success at a senior level increased their confidence in their ability to perform on the senior stage:

When you win you kind of like start riding this wave of success, and you can’t really describe how, what the difference is that has changed in you or your performances but you just get a massive confidence boost, I think after the commonwealth games it just kind of made me like wow, you know I am a senior athlete, I have stepped onto the senior stage and I have won a medal and I am not actually that far away from people who I thought were kind of out of reach.

**6.3.3.7 Positive Training Environment.** Athletes who experienced an unsuccessful transition identified one further external facilitator that was not discussed by successful athletes. Unsuccessful athletes perceived one external facilitator was having access to a positive training environment. This theme encompasses (a) athletes having senior athletes to model and (b) being encouraged to develop the technical proficiency during the transition period.

Athletes proposed that having senior athletes to model and learn from had a positive influence during the transition period. One athlete described that as a young athlete they had senior role models to train with:

By the end of that year I was effectively just a young training partner for these guys, and it's bizarre to be throwing with you know one of the greatest javelin throwers of this generation, of all time. It was amazing to see and train with someone at that level, I learnt so much from those guys.

Similarly, other athletes talked about learning from older athletes on international teams, and the behaviours would be expected of them:

When you go to a championship the first time, and when I went to Sydney, you were doing a typical thing as a 16 year-old – going swimming in the sea, sunbathing, drinking cans of coke, MacDonald's – you know, just doing all that. But then you start to see the older athletes in the team like Dean Macey, and Dwayne Chambers, and people that were the greats of our sport, and I was looking up to them and learning from them, what am I meant to be doing here.

Finally, athletes indicated that having a training environment that encouraged the development of event-specific techniques also facilitated their transition into senior sport. One athlete stated, “you need to be technically very efficient, I think learning's so important, like creating a learning environment for athletes is challenging, so having that helped me”. One athlete, who now coaches discussed the importance of creating a positive learning environment:

It's just creating conditions that allow people to learn. And it's being very, very specific about “Well these are things that need to change, this is the technique you need to improve, and these are the conditions that we need to adopt to try and change that”.

Another athlete, who also coaches at a school described how they are trying to create that type of environment for the pupils at their school:

I'm doing things at my school, creating a facility in an environment that the kids are used to and feel happy in and enjoy it, and it isn't about finding somebody and next year winning the English Schools – it's about having somebody who will probably go under the radar for a long time, but do the groundwork, develop their technique and strength, and all of a sudden, they'll come out.

#### **6.3.4 External Debilitators**

Athletes who experienced a successful transition from junior-to-senior sport referred to three external debilitators that they perceived as having a negative influence on their transition experience (a) World Junior Championships experiences, (b) financial pressures, and (c) injuries, all of these external debilitators were also identified by athletes who had an unsuccessful transition (see table 6.3).

**6.3.4.1 World Junior Championships Experiences.** Although, as highlighted above, the World Junior Championships provided some positive developmental experiences, a number of athletes also believed that following their World Junior Championship performance, they perceived an increase in pressure to perform and transition as a senior athlete. One athlete who won the World Junior Championships described how they felt pressure to replicate this as a senior athlete:

I definitely think when you perform well as a junior people are looking at you to do something and when you do it as a junior, you feel like the next stage is to do it as a senior and the pressure becomes a lot.

Similar to athletes who were successful in their transition, athletes who failed to transition into the senior ranks also reported that competing at a World Junior Championships added an increase in external pressure to perform and transition successfully as a senior athlete:

Look at how many people who go to Worlds Junior and get offered sponsorship, again this contributes to the fact you know two or three years down the line, if you have not continued this like super-sonic progress that will all be lost interest as well, you know, that's a lot of added pressure to deal with.

**6.3.4.2 Financial Pressure.** Athletes, both successful and unsuccessful, perceived that a lack of financial support or financial demands could have a negative outcome on their junior-to-senior transition. One athlete reflected on being in a challenging financial situation and believed that offers an explanation as to why some athletes drop-out from the sport, “Yeah, no holidays, no treats, no nothing. Yeah, so I was living off minimal money and I just wonder how many other athletes would do it if they had no money”. Another athlete in the study highlighted that despite public perception, they did not make money from the sport:

I have spent all my money doing this you know, and people go “but you made money out of athletics” and you know as well as anyone, yeah, I have a Nike deal, but it is not pretty. I could work part time in Asda and make more.

One athlete who failed to negotiate the junior-to-senior transition reflected on the embarrassment they felt having to rely on family to financial support them during the transition years, stating:

My parents helped me at that point, and I was embarrassed. I was 21, 22, and my mum and dad were still helping me out financially. I mean I couldn't afford to run a car. I was living in Leeds, but it was my brother-in-law's flat at the time, so even he was supporting me in the sense that it was really cheap living.

**6.3.4.3 Injuries.** Injuries were identified by both athletes who were successful and unsuccessful in transitioning into the senior ranks, as an external debilitator. Despite their concerns, all of the athletes who successfully transitioned successfully overcame their

injuries with the appropriate support and rehabilitation. One athlete reflected on a serious injury, which made them more determined to return to competition:

I didn't struggle a lot with injuries. I had lots of little ones, I had shin splints a lot when I was younger and some back issues, but I think they were just growing pains, and things that just happen when you are a bit younger. My biggest blow was in 2008 and having those injuries definitely changed those next few years for me massively. It just made me firstly appreciate what I had achieved to that point and then made me really hungry not to let that be the moment of my career where it kind of fizzled off. So many people were like, oh yeah, she'll struggle and that just made me really annoyed because the thought, no I am going to push back.

One athlete in the study who failed to make the transition, shared their injury problems and the perceived lack of medical support that influenced their transition into the senior ranks:

They [British Athletics doctor] just said you have a tear, you need an operation and he didn't give me any indication that I would not be right for the next Olympic year, so I thought right I will have the operation and get back training properly at the start of the year. So yeah had the operation and then the rest of my senior career didn't go well.

Athletes who were unable to transition into the senior environment also identified a further four external debilitators that they perceived influenced their transition including (a) over-trained as a junior/burnout, (b) lack of facilities, (c) increase in qualification standards from junior-to-senior level, and (d) the coach.

**6.3.4.4 Over-trained as a Junior/Burnout.** Athletes perceived overtraining and/or burnout as having a negative influence on their transition into senior sport. Athletes spoke about being pushed too hard from a young age, which caused them to burnout. One athlete stated:

I'd trained really hard when I was 18, 19, 20, too hard – because I was trying to catch up from when I was injured. And I just – you know, I was really committed, I wasn't drinking, I was training 5 days a week which is too much for a kid that's going through his A Levels, trying to get to uni.

Another athlete reflected on their experiences of overtraining as a junior, and believed national governing bodies should address this issue, especially in endurance events:

I think particularly in, women's distance running there are so many people who compete well as a junior because they are doing a massive mileage and all the rest of it. I think, governing body needs to play a much more interventional role and saying look you actually need to stop doing that and, obviously that is something that is difficult but I think that is one of the responsibilities of governing bodies to make sure that that is not happening because it is a travesty really.

**6.3.4.5 Lack of Facilities.** A number of athletes identified a lack of facilities as an external debilitator during the transition. One athlete stated, "I think it's a generic challenge that every athlete has particularly, that they're limited on coaches, and they're limited on facilities". One athlete suggested this was a problem particularly rife within throwing disciplines:

Look at our top throwers now, and the first question I ask is "Where do they train?" They're both in the States. None of our top throwers now train in the UK. Loughborough - It's an awful environment. Who wants to go and live in Loughborough? You speak to any athlete who doesn't live in Loughborough, and it's negative, negative thoughts of the place. And even some athletes who live there, you know and that's the reasons why I think our throwers are going abroad is because they're out of that crappy environment and they have access to the best facilities, and

I'm only talking from experience here, but there isn't anywhere really for people to go in the UK.

Another athlete made reference to the lack of facilities across the UK and stated:

As an athlete, I could be born Usain Bolt, but if I'm in the sticks of England, like somewhere in the middle of nowhere, with no track, with not really an athletics background, I might try athletics, but then you'll lose me to football.

**6.3.4.6 Increase in Qualification Standards from Junior-to-Senior.** Athletes highlighted the increase in qualification standards from junior-to-senior level, with many suggesting there was a big jump when qualifying for junior championships to gain selection for senior championships. One athlete stated:

I had 18 months to throw another 5 or 6 metres, and I knew there was just no chance... I mean, I'm all for being confident, and you know really putting everything on the line, but that was almost a ridiculous task. It was too much of a jump, and there was nothing in between. I wasn't even a junior then so there was no little competitions in the meantime. The competitions then for me were Commonwealth Games and Olympic Games, they were the ones that I could go for.

**6.3.4.7 The Coach.** Athletes who experienced an unsuccessful transition described several challenges they experienced with regards to their coach. This higher-order theme is made up of three lower-order themes: (a) relationship changes during transition, (b) change of coach did not work, and (c) a lack of coaches/coach education.

Athletes identified changes in the coach-athlete relationship during the transition from junior-to-senior level. One athlete described how it was important for coaches to understand that their relationships will change during this period:

I think if you coached an athlete through that time you have to realise that the relationship is going to change, and that athlete needs to mature and have more

independence and you need to trust them. I think that for a coach can be quite difficult as well.

A number of athletes also described how they changed coach following their junior years which they perceived did not work for them. One athlete explains:

I started seeing [new coach] for my hurdles and high-jump, just to get extra input but there was a bit of like tension there with my old coach. And he didn't really want to work with [new coach], but I knew I needed it, I was quite aware of myself as an athlete, I knew where my weaknesses were and so I was like, "Look, I need to get some extra help". There was a bit of pressure there as well because he was employed by British Athletics, so he was saying "Look, I'm national coach. You want to progress from junior-to-senior, then you need to leave [old coach]", which is ultimately what I did. So, I stayed with [new coach] over the next couple of years but our relationship didn't really work out.

Another athlete spoke about changing coach at the recommendation of British Athletics, which they also perceived had a negative influence on their transition into the senior ranks:

I actually moved to Loughborough to try and ... that was their [British Athletics] suggestion. So, me and [fellow athlete] moved to Loughborough to train together. We got there, and there was no coach, no performance coach. So, we were like What? the plan was British Athletics wanted us to move to Loughborough, so we both went to Loughborough to study and after the first 6 months, they still hadn't got us a coach.

Finally, athletes discussed the lack of quality athletics coaches, as an external debilitator to the transition. One athlete stated - "coaching does make a massive part of it. Just finding a good coach, and when you look at it on paper, there's not many good coaches in Britain at all especially in the North". Another athlete reflected on moving to the High-

Performance Centre in Loughborough with a fellow national athlete, stating - “we were the next best things. We’d been both living in Loughborough, and there was no coach for us, so we didn’t train together. There was no provision, no coaching”.

One athlete believed that the perceived lack of quality coaches came from poor coach education, stating:

I think coach education is a problem in this country. I think the other thing with coaches is that if there was a better recognition system for coaches – if coaches were valued more, there would be more coaches, better coaches, but that all stems from coach education.

### **6.3.5 Cultural and Organisational Facilitators**

Both athletes who successfully transitioned and those who were unsuccessful discussed cultural and organisational facilitators in relation to the National Governing Body – British Athletics (see table 6.4).

**6.3.5.1 National Governing Body (British Athletics).** Athletes in the study identified one cultural and organisational facilitator which reflected the financial support that was received from the national governing body. Athletes believed that receiving financial support enabled them to concentrate on training full-time without worrying about earning an income alongside their sporting career. One athlete who successfully transitioned stated:

I had it [financial support] all the way through, from a young age, so that did definitely help, particularly because my mum and dad didn’t have money to give to me. It just gave me a little bit more flexibility with being able to go to Uni and I worked a little bit, but I didn’t have to work that much and have a part-time job so I was able to train after school and compete at weekends, so that definitely made that transition a bit easier for me.

Another athlete who did not transition successfully, received a small amount of financial support from British Athletics - "I had money, what did I have, I think British Athletics there was like a development programme which was like £1,000 per year. So that would be gone in a month". Another athlete reflected - "British Athletics supported me as a junior but didn't as a senior".

### **6.3.6 Cultural and Organisational Debilitators**

Athletes discussed a number of cultural and organisational debilitators that they perceived hindered their progression into senior sport. All of the cultural and organisational debilitators related to the National Governing Body, with all athletes in the study perceiving that there was (a) a lack of support from the British Athletics and (b) no clear development pathway. In addition, athletes who successfully made the junior-to-senior transition identified three further debilitators; (a) do not care about the person behind the athlete, (b) funding structure/decisions, and (c) selection decisions. Moreover, athletes who were unsuccessful in their transition into the senior ranks identified an additional debilitator which reflected a pressure to move to high performance centre.

**6.3.6.1 National Governing Body (British Athletics).** All athletes in the study perceived there to be a lack of support from British Athletics, which they felt hindered their progress when transitioning into the senior ranks. One athlete expressed significant concerns about the lack of support they received from British Athletics - "It's disgusting, it's the worst, I've never, I know a lot of organisations are bad, but I have just never seen anything so brutal and disgusting". Another athlete spoke about how they received no support, or contact from British Athletics despite their successes:

I got kicked off funding because I don't have coach xyz, but I made the funding criteria, I made the Europeans, the worlds and the Olympics without a coach. And

Table 6.4

*A Cross-Sectional Comparison of Cultural and Organisational Facilitators and Debilitators Perceived to Influence the Junior-To-Senior Transition*

	<b>A successful transition</b>	<b>An unsuccessful transition</b>
<b>Cultural and Organisational Facilitators</b>	National Governing Body (British Athletics) <i>Financial support</i>	National Governing Body (British Athletics) <i>Financial support</i>
<b>Cultural and Organisational Debilitators</b>	National Governing Body (British Athletics) <i>Lack of support</i> <i>No clear development pathway</i> <i>Do not care about the person behind the athlete</i> <i>Funding structure/decisions</i> <i>Selection decisions</i>	National Governing Body (British Athletics) <i>Lack of support</i> <i>No clear development pathway</i> <i>Pressure to move to high performance centre</i>

Table 6.5

*A Cross-Sectional Comparison of Intervention Strategies Perceived to Facilitate the Junior-to-Senior Transition*

<b>Intervention Strategy</b>	<b>A successful transition</b>	<b>An unsuccessful transition</b>
	Mentoring for athletes	Mentoring for athletes
	Educational support (for coaches & parents)	Educational support (for athletes)
	Sport Psychology support	Sport Psychology support
	Goal setting for the transition period	

not once has anyone [from British Athletics] said well done, or how did you do that, or what training are you doing, or even, are you taking drugs, or whatever, you know what I mean? At least question it in some form. They are just like, oh fuck; I am just an annoyance to them.

A number of athletes spoke about a lack of contact or support from British Athletics, and rarely communicated with the organisation outside of a major championship. One athlete stated:

How much contact I have received from British Athletics? I am a senior athlete, I am 9th in the world at the moment and I haven't had any conversation still. I came 4th at the Commonwealths and I still haven't had any conversation with anyone at British Athletics.

Finally, one athlete believes British Athletics should be held more accountable for the lack of athlete support, especially concerning the welfare and mental health of their athletes.

I think the Governing Body's got to start being held more accountable, there's just an overriding lack of support from them. Especially in this climate, with all this stuff that's coming out now, welfare is quite a big thing, mental health and stuff like that – it's like very big, like bullying – before the organisation could quite easily bully someone, but now-a-days it's getting a bit harder. It still happens though.

Another organisational debilitator identified by athletes who were both successful and unsuccessful in their transition, was the lack of a clear development pathway. One athlete reflected on their transition experience and perceived that there was no development pathway for them to progress through:

I mean that whole time there was no talent identification, I don't really believe in talent ID you know what I mean, but there was no identification of it and there was no

development or pathway to go through because it was either you are on a Futures [NGB developmental funding] or you are not, which I wasn't on.

Another athlete reflected on the lack of development pathway as a failing of the national governing body who were not learning from their previous experience of losing young talented athletes.

How often in this country do we have someone who is a world junior champion and then does nothing? A lot... right you have this failure happen every time and it is a failure because they [British Athletics] are not learning properly, and not learning how to develop these athletes.

As mentioned, athletes who successfully made the junior-to-senior transition identified a further three debilitators that were not discussed by athletes who were unable to make the transition - (a) do not care about the person behind the athlete, (b) funding structure/decisions, and (c) selection decisions.

In a similar vain to a lack of support, athletes also perceived that British Athletics did not take the time to get to know the person behind the athlete. One successful athlete spoke about how the national governing body does not know about their life away from the sport:

This is what baffles me is that they don't know me, within funding and within British Athletics they don't know anything about my home life. They didn't know that I came from a single parent family, had very little income and so on and I literally used to scrape pennies so that I could go to training because I couldn't afford to pay track fees. They don't care about any of that.

Similarly, another athlete described that British Athletics forget that you are a person as well as an athlete - "I think they forget sometimes that you are a person as well, they just seem to make a comment like you are just a robot and you should just be able to perform all

the time”. Finally, another athlete felt strongly about there being a lack of support, and perceived that British Athletics did not care about them and would not care if they quit:

I think it is a bag of shit. I mean it is disgraceful how people are treated, and I think it is a horrible sport because it is so brutal, and the wellbeing side of things should be better. I am someone who is top ten in the World and British Athletics won't care less if I quit. They don't care about me.

Another debilitator discussed by successful athletes reflected the funding structure set up by the national governing body. A number of athletes highlighted flaws they perceived with the current funding structure. One athlete believed that athletes should be funded for the long-term and described feeling too much pressure with funding being reviewed yearly. This athlete stated:

So, I feel like they [British Athletics] need to see that their funding can't really be from year to year, but it is. It's so much pressure on you as an athlete to perform every year or else. You know they could have easily kicked me off funding that year and decided not to fund me, and that would have been really difficult.

Another athlete suggested that the funding programme would be improved if it was tailored to meet each individual athletes' financial needs, rather than just providing the same sum of money for every athlete:

its [funding] not tailored to that athlete and every athlete is different. I have seen GB athletes, they get on funding and go and buy a new car, they already have a car that works fine, and they upgrade to a new car and that's meant to be your funding money... That is funding money that is meant for your training for the year, for whatever you needed, they obviously don't need that money, so I think it would be better if it could be more tailored to an athlete's needs.

Finally, another athlete questioned the culture of funding:

I have been told, and I have got it in writing that it is likely that I will be an Olympic finalist at 2020, but they said [British Athletics] that is not what they fund, they fund potential medallists not finalists. When did we create a culture where being an Olympic finalist is failure!?

The final organisational debilitator identified by athletes who successfully transitioned was selection decisions for major championships. One athlete discussed selection decisions that went against them. This athlete was discussing the selection of another athlete over themselves for the 2012 Olympic Games:

I won 6-1 head to head. My average was 2 ½ metres better than him. Every single bit of the criteria I beat him on, and they picked him anyway. They picked him anyway. That's why I never went to London. I qualified 5 times, he qualified once. And you needed 2 and they took him. That just showed me that the rules can be bent however they wanted them to be, and I have been on the wrong side of the line many, many times.

Finally, another athlete discussed the selection panel, and believed that they do not know about the athletes before they make a decision for or against selection:

It's the same with the selection panel, they don't really know that much about that athlete and what they are doing, they might have an idea because they have spoken to the athlete or they speak to the coach, but they don't know 100% of what is going on, I feel like that's what you need to know, how can you make a selection decision on somebody, when you only know 50% of the information.

One final debilitator experienced by athletes who had an unsuccessful junior-to-senior transition, was the perceived pressure from the National Governing Body to move to their High-Performance Centre in Loughborough. One athlete reflected on their experiences, stating:

There was a lot of pressure from British Athletics, so the first thing they said to me when they offered me funding is, they wanted me to move to Loughborough. That was when I took my year out, they said “move to Loughborough”, but I mean this was the time – there’s not many coaches at Loughborough now – but this was at a time when there were even less coaches ...there wasn’t a lot of event specific coaches. So, I just turned around and said “But, who’s going to coach me?”

Similarly, another athlete describes feeling pressure from British Athletics to move to Loughborough, stating “Yeah, it was pressure, 100%. You’re 18, 19, and you’ve got somebody telling you, someone whose employed by the organisation, who’s head of the event you’re doing, telling you, if you don’t move, you’re not going to progress”.

### **6.3.7 Intervention Strategies for the Junior-to-Senior Transition**

Athletes who experienced a successful and unsuccessful transition from junior-to-senior level identified a number of intervention strategies that they perceived may facilitate the transition (see table 6.5). In total, both successful and unsuccessful athletes identified three of the same intervention strategies: mentoring for athletes, educational support, and sport psychology support. Athletes who experienced a successful transition also perceived that goal setting was a useful intervention strategy during the transition.

**6.3.7.1 Mentoring.** All of the athletes in the study discussed that mentoring support for athletes was a positive intervention strategy to facilitate the junior-to-senior transition. Successful athletes describe the interactions with senior mentors as motivational and inspiring. One athlete stated:

I remember being at a school sports awards and Leon Taylor would come and talk about what he had achieved and I just found it so inspiring just listening to someone else, whether it is from a different sport or whatever just hearing how they did it and how they achieved it, and yeah, I think definitely that kind of mentoring is a big thing.

Another athlete reflected, “You should get people who have been through it to talk to other athletes. I would have found that really helpful”. One athlete in the study believed a mentoring programme would offer transitioning athletes an opportunity to speak to someone who has been successful, stating:

I think we can do more in the sense of athletes that have been really successful, like a mentoring programme. I think it’s great for people to be able to give their knowledge and for people to talk to each other and realise everyone goes through the same thing. Because at the time if it’s not going well, it feels like your problem is the worst in the world, but everybody has issues and just because you have a problem doesn’t mean that someone else’s problem is easier to solve.

Finally, one athlete who experienced an unsuccessful transition, expressed the desire to hear from athletes who had successful junior careers but did not make a successful transition into the senior ranks - “The sport’s full of people who are unbelievable as kids, unbelievable! Honestly, like the next best thing, and you never see them again. And I would want to hear from those”.

**6.3.7.2 Educational Support.** All athletes, both successful and unsuccessful in the transition outcomes perceived that educational support can facilitate the junior-to-senior transition. However, athletes who were successful discussed the need for educational support for coaches and parents, whereas athletes who were unsuccessful perceived that athletes were in need of additional education.

First, successful athletes in the study perceived that educating coaches on the junior-to-senior transition would be an effective intervention strategy, especially if coaches were educated on how to best support their athletes through the transition period. One athlete stated:

Teaching coaches to support the athlete better. It's not just the programme, its everything else that comes, it's a lifestyle, you are the overseeing this persons performance, so that doesn't just include the programme it includes, working out training, making sure everything is set up for the athlete and I think that's where some coaches lack a little bit. I think they have got to be more proactive as a coach.

Another athlete also perceives coach education to be important, "I think definitely coach support is needed, so just educating coaches to understand that you don't want rush your athletes into performing at the top level too young".

These athletes also perceived that parent education would be a successful intervention strategy to implement during the junior-to-senior transition. Athletes perceived that their parents were important in supporting their transition into senior sport, and that if other parents were educated on this process they may better understand the challenges and demands associated with the move. One athlete stated:

I had to do a talk to parents which for me was fantastic and I think is the best thing because you are working with parents that is where you are going to affect more people, and more people positively because they have more access and also with parents if you get them on the same page, if they understand what they want from them during that transition period then they can start helping their kid.

On the other hand, athletes who experienced an unsuccessful junior-to-senior transition believed that they would have benefited from receiving a range of educational support (e.g., nutritional, lifestyle, physiological) during their transition years. One athlete said:

Educating on the non-athletic kind of stuff, just stuff like nutrition and finances, you are quite naïve to the whole world at that point, but back then there was no like just general life advice. You know some peoples' parents would give it to them but I kind

of, I didn't really have a clue. Also, things like meal planning, how much sleep you need, how quickly you need to recover after training stuff like that. It's just stuff I didn't find out for years.

Another athlete believed an important intervention strategy would be to educate athletes on their life away from the sport and the challenges associated with the junior-to-senior transition:

Too many people, like especially in the Juniors, you feel on top of the world and you're not really thinking of like a contingency plan to take care of things, but when shit does hit the fan, it's too late, like – so, yeah, there's no education, there's none at all. And, if anything, they don't want to educate you! Because they don't want to – they don't want you to know how poor, how badly the sport supports athletes. You want to open their eyes and say – but it's very hard for you to do that within British Athletics ...British Athletics is not going to invite you to speak to some people going to the World Juniors, for you to tell them that British Athletics are not going to be here to support them after.

**6.3.7.3 Sport Psychology Support.** Both athletes who were successful and unsuccessful in negotiating the transition, felt that speaking to a sport psychologist during the junior-to-senior transition would aid their transition. One successful athlete stated:

Psychology support not in a medical term but just having someone there and knowing that the support is there knowing that if things start going shit or I need help with this or I think I am not performing how maybe I should have performed, I have got someone to talk it through with rather than going “Oh well I don't know what to do, I am just stuck in a hole”.

One athlete also believed a sport psychologist helped them to cope with the pressure associated with successfully making the transition:

I think that support of either a psychologist or something like that is really beneficial, because of the pressure you put yourself under, there's a lot of pressure in those transition years, but I think you have to put it in perspective a little bit, that is what I have learnt.

Another athlete who was unsuccessful in negotiating the transition, did not have access to a sport psychologist, but believed it would have been a useful intervention strategy during the transition:

Psychologists have a massive place in it because it is such an emotionally draining sport as an individual. Team sports you can at least, if you have a bad day, someone can drag it out and win it for you and whatever, but as an athlete it is quite a lonely sport.

**6.3.7.4 Goal Setting for the Transition Period.** One final intervention strategy discussed by successful athletes only was goal setting for the transition period. One athlete set new goals each year during their transition - "I'd refocus to have new fresh goals every year". Another athlete who experienced a successful transition also set goals each year - "Just having little goals, every year, through juniors, u23's and seniors. I imagine most athletes have goals don't they, that they set themselves each season". Another athlete believed that it is important for athletes to set goals throughout the transition period:

You need a clear view, a clear goal of what is required for you to make, you might not be right, but you at least need a clear view of what is going to make the difference between where you are now, what's going take you to the top.

## 6.4 Discussion

The following section provides a comparison of facilitators and debilitators associated with the junior-to-senior transition from the perspective of athletes who experienced either a successful or unsuccessful transition from junior-to-senior sport. The discussion comprises

of sections on individual and external facilitators and debilitators, organisational and cultural factors and intervention strategies, all of which are represented in the individual, external, cultural model of the junior-to-senior transition (see chapter 4).

#### **6.4.1 Facilitators and Debilitators**

Athletes who made a successful transition believed they possessed many psychological attributes that facilitated their transition (e.g., determination and commitment, confidence, work ethic, intrinsic motivation, patience, and resilience). A number of these psychological characteristics (e.g., commitment, motivation determination) can be especially important for athletes looking to make the step up into elite sport (Holt & Dunn, 2004; MacNamara, Button, & Collins, 2010).

On the contrary, athletes who failed to transition did not discuss these psychological attributes, either perceiving that they do not possess these attributes, or they did not facilitate their transition. Instead, athletes who were unsuccessful in their transition perceived that they had a natural ability and recognised that they were successful in the early stages of their career, which athletes believed aided their transition. Although athletes identified their natural ability as an individual facilitator, it is interesting to consider the influence that this belief may have had on their competition behaviours which were identified as an individual debilitator. Whilst perceiving they possessed a natural sporting ability, athletes also stated they did not cope well with losing after their earlier junior successes came quite easy. On the other hand, successful athletes discussed their focus on progression, developed competition coping strategies, and took their opportunity to learn from previous experiences - a number of these themes resonant Dweck's idea of "growth mindset" (Dweck, 2008). This theory postulates that individuals tend to understand the potential and limitations of their abilities through one of two mindsets: fixed or growth (Dweck, 1986). Individuals will believe particular traits and characteristics are either innate and unchangeable, or learned and

malleable, which represents the beliefs of a fixed or growth mindset respectively. Research has shown that a growth mindset fosters a healthier attitude toward practice and learning, a greater ability to deal with setbacks, and significantly better performance over time (Dweck, 2009).

Athletes who made the step up from junior-to-senior sport appeared to hold beliefs that were indicative of a growth mindset, perceiving attributes such as determination, commitment, work ethic, and learning from prior experiences to be important in their development. While athletes who were unsuccessful in their transition outcome, shared beliefs in line with a fixed mindset, perceiving they possessed a natural talent and achieved early success, perhaps because of this, these athletes also did not cope well with losing and some athletes approached competitions with a negative mindset (e.g., focused on not performing poorly).

None of the successful athletes referred to being talented or having a natural ability; instead, they referred to their attributes such as determination and work ethic. Athletes who possess attitudes indicative of a growth mindset are able to cope better with the demands associated with a successful development, such as; the ability to deal with setbacks, persist with repetitive/monotonous training, and take responsibilities over their development (Dweck, 2008; MacNamara et al., 2010). Based on findings from the current study, it is possible athletes who were successful in transitioning into the senior ranks held beliefs associated with a growth mindset or had access to a training environment and a support network that fostered and encouraged the development of these beliefs, which ultimately aided their transition.

Successful athletes also identified a number of other individual facilitators, that were not identified by those athletes who were unsuccessful in negotiating the junior-to-senior transition. For example; achieving a life balance, learning from previous championship

experiences, and developing competition coping strategies, with a number of these factors being supported in the transition literature as being facilitative to the transition outcome (e.g., Bennie, & O'Connor, 2004; Hollings, 2014).

As found in previous research, both athletes who were successful and unsuccessful in making the transition perceived that there is an increase in pressure to perform and pressure to make the transition into the senior ranks (Finn & McKenna, 2010; Franck, & Stambulova, 2018a; Pummell et al., 2008). During the junior-to-senior transition, athletes are required to perform at the highest level, need to commit their lives to their training and competitions, whilst competing against senior athletes who are often more experienced and proficient in their sport (Wylleman et al., 2000). As a result, many athletes may be unable to cope with the increase in pressure when they move from junior-to-senior sport (Morris, 2013). Despite all athletes in the current study (successful and unsuccessful) describing the increase in pressure, athletes who were successful in making the transition discussed various individual and external resources (e.g., social support, psychological attributes) that could help to manage and cope with the increase in pressure. Athletes who have access to a number of resources (e.g., determination, motivation, social support), as discussed by athletes who were successful in transitioning in this study, are more likely to cope with the pressures associated with the junior-to-senior transition (Finn & McKenna, 2010).

One clear difference between athletes who had a successful transition compared to those who experienced unsuccessful transitions was their perceived social support. Athletes who had a successful junior-to-senior transition discussed having an extensive support network from a variety of individuals including; parents, coaches, training partners, peers, physiotherapist, medical support, family members, and sport psychologists. On the contrary, athletes who were unsuccessful referred to parental support and only two other types of social support that they had access to- partners and their university. One hypothesis proposed by

the individual, external, cultural model of the junior-to-senior transition (see chapter 4) was that athletes with appropriate support (i.e., financial, social, and material provision) are more likely to have a successful junior-to-senior transition. Some support for this hypothesis comes from the findings of the current study where athletes who experienced a successful transition perceived that they had access to a more extensive support network compared to those who were unsuccessful in making the step up into senior sport. Athletes support networks are regarded as one of the most critical factors in determining the outcome of the junior-to-senior transition (Morris, 2013). Various sources of support are needed for transitioning athletes, as they have different roles to fill and specific types of support to provide (Morris, 2013). Whilst all athletes in the study discussed parental support who largely provide emotional and tangible support, only successful athletes identified their coaches and training partners as a source of support which can often be a source of technical, informational and emotional support. It is evident in the current study, that athletes who made a successful transition had access to a more extensive support network, or at least perceived their support network to assist them during the junior-to-senior transition. Moreover, a lack of social support can hinder the junior-to-senior transition and could lead to a more difficult period for athletes (Pummell, et al., 2008). As mentioned, unsuccessful athletes discussed their partners and their university as a source of support. Both partners and the university were described as providing emotional and tangible support. One clear difference between athletes who successfully transitioned compared to those who did not, was that the later do not appear to have any source of informational, technical or tactical support, which can often be provided by the coach. Technical and informational support is particularly important for transitioning athletes to understand areas of improvement (Morris, 2013). Bruner et al. (2008) found that athletes believed that coaches helped during their transition into elite sport by providing technical support.

In addition to the variances in athletes support network, there were also clear differences in athletes perceptions in the role of the coach. Athletes who were successful in their transition perceived their coach to be a source of support, while these athletes also possessed a trust in their coaches' ability to plan for long-term progression and support them through the transition. Contrary, athletes who experienced an unsuccessful transition did not recognise their coach as a salient source of support during the transition and did not identify the coach-athlete relationship as facilitating their transition. The coach-athlete relationship has been identified as playing a fundamental role in determining athletes' developments and performance achievements (Jowett & Meek, 2000). An absence of connectedness, trust, support and communication between a coach and athlete can lead to conflict within the coach-athlete relationship and negatively influence performance and development (Jowett, 2005; Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999). Furthermore, not only did unsuccessful athletes not identify their coach as an external facilitator, but some athletes also perceived their coach to influence their transition outcome negatively. Athletes perceived that the relationship with their coach changed during their transition, and suggested their coach was not able to adapt to their new role. For example, during early participation the coaches' primary role is to demonstrate kindness and nurture athletes. Over time this role evolves into a position where coaches' are more professional and knowledgeable (Côté, Baker, & Abernethy, 2007).

Finally, both successful and unsuccessful athletes identified many positive factors associated with their experiences of competing at the World Junior Athletics Championships. Athletes perceived that competing at the World Junior Championships prepared them for senior championships, motivated them to pursue a career in athletics, helped increase their confidence, and was a fun experience. However, athletes also perceived there was an increase in pressure following their performances at a World Junior Championships, which they

believed to be debilitating towards to transition outcome. Many athletes referred to the pressure of making the transition and the pressure associated with making continual progress from the elite junior ranks into the seniors. This pressure can be particularly apparent in a sport like athletics because of the individual nature of the sport and the clear objective performance markers which are often used to determine whether a performance is good or bad (Hollings et al., 2014b).

The facilitators and debilitators identified by athletes in the current study also support a number of key findings from the individual, external, cultural model of the junior-to-senior transition developed in a previous study in the thesis (see chapter 4). As highlighted in the model, once athletes have satisfied the transition preconditions they are then elevated into a situation where a number of facilitators and debilitators can influence their transition experiences. Athletes in the current study identified numerous individual factors that were highlighted in the model (e.g., understanding the transition process, work ethic, motivation, achieving a life balance, increase in pressure). Similarly, athletes highlighted several external factors that were identified in the model as having the potential to impact the transition outcome (e.g., social support, increase in pressure to perform, time pressures, financial demands, injury/setbacks).

#### **6.4.2 Cultural and Organisational Factors**

As highlighted in the individual, external, cultural model of the junior-to-senior transition (see chapter 4), organisational culture and values can be considered both facilitative and debilitating to the transition, something that previous models have failed to adequately recognise. In the current study, athletes who were both successful and unsuccessful in the junior-to-senior transition identified many comparable organisational facilitators and debilitators that were identified in the aforementioned model (see table 6.4).

The organisation within which the junior-to-senior transition occurs is likely to influence athletes' transition outcomes (Morris et al., 2015). For example, if athletes perceive there to be inadequate organisational support they are likely to experience an increase in stress which can negatively influence their transition into senior sport (Pummell, et al., 2008). Both groups of athletes perceived there to be one organisational facilitator which was financial support. Athletes perceived that the financial support received gave them the freedom to focus on their sport.

Conversely, athletes in the study also identified many cultural and organisational factors that were perceived to negatively influence their transition into senior sport. All athletes who were successful in their transition and those who were unsuccessful, perceived there to be a lack of support from British Athletics. Research suggests that development and progression from the junior ranks into the senior age-group is unlikely to occur if athletes do not feel valued and nurtured by coaches, organisations, and national governing bodies (Martindale, Collins, Daubney, 2005). Athletes who were successful in making the junior-to-senior transition - all of whom had been on the British Athletics World Class Programme (WCP), believed British Athletics did not care about the person behind the athlete, were only interested in their competition results and provided inadequate support. Despite the lack of organisational support, athletes that negotiated the transition were still able to achieve success in the senior ranks. This could be because, as highlighted earlier, successful athletes had access to a much larger support network that were able to provide the various types of support lacking from the national governing body. Whereas, athletes who were unable to make the transition had a much smaller support network which potentially hindered their ability to cope with the demands associated with this process.

Both athletes who were successful and unsuccessful in their attempts to transition into senior sport believed there was no clear development pathway for athletes making the

transition. Most national governing bodies will aim to support young talented athletes to transition and go on to successfully perform at a senior international level (Martindale et al., 2005). However, athletes in the current study believed that there were no clear expectations from the national governing body during the transition process. A number of athlete discussed receiving lottery funding but failed to get further guidance on their development or progression from the national governing body (e.g., performance indicators to stay on funding, yearly progression targets). Martindale et al. (2005) suggest it would be counter-intuitive to provide funding and recognition to high achieving young athletes without establishing long-term development objectives.

### **6.4.3 Intervention Strategies**

Athletes who were both successful and unsuccessful in making the transition from junior-to-senior level suggested they did or would have benefited from a number of interventions, including a mentoring programme (see table 6.5). Mentoring involves a relationship in which a mentor counsels, guides, and supports a protégé (Hardy, 1994). Mentors can be used to teach young athletes the appropriate knowledge and guidance on senior-level competition, become a source of social support, and give them a better understanding of what is expected of them (Bruner et al., 2008; Pummell & Lavalley, 2019). Athletes who experienced a successful transition, discussed a number of mentoring experiences that occurred during their transition, which they perceived to help them understand the transition process and the senior environment. On the contrary, athletes who were unable to successful transition lacked opportunity to engage in a formal mentoring programme, with some athletes relying on older training partners to mentor them throughout the transition. All athletes who experienced unsuccessful transition believed they would have benefited from being able to confide in and receive advice from a senior, more experienced athlete during the transition period. Sports organisations or clubs may look to develop

mentoring programmes where junior athletes are allowed to learn critical skills and behaviours through the observation and modelling of experienced senior athletes.

In addition, both groups of athletes identified similar educational interventions that they perceived would assist athletes through the transition into senior sport. Athletes in the study perceived that there was a lack of educational support during the transition for coaches, athletes and parents. Athletes who were successful described the need for coach and parental education, specifically regarding their role in the transition and how to support their athlete throughout this process. Whereas, athletes who were unsuccessful discussed the need for educational support for themselves and felt this was lacking during their transition. Sports organisations should look to educate young athletes on the transition process, including the factors associated with the transition and coping strategies to facilitate the process. Through education on the transition process as well as various other lifestyle skills (e.g., financial planning), athletes are likely to increase their knowledge of the transition and readiness to make the step up into senior sport (Hollings, 2014; Pummell & Lavalley, 2019).

#### **6.4.4 Applied Implications**

As the aim of the study was to develop an understanding of athletes successful and unsuccessful transition experiences, there are several applied implications for key stakeholders to consider. First, the information presented in this study can provide athletes, coaches, parents, sport psychologist, and organisations with a detailed understanding regarding facilitators and debilitators of the junior-to-senior transition within a sport-specific context, track-and-field athletics. Athletes can use this knowledge to educate themselves on the demands associated with the transition (e.g., increase in pressure), and look to develop sufficient attributes or skills (e.g., motivation and support network), to cope more effectively with challenges associated with the junior-to-senior transition. Coaches and parents can use this knowledge to increase their understanding of the role they play in supporting their athlete

through the junior-to-senior transition. For example, coaches should be aware of changes in their role during the transition period, and that a successful coach-athlete relationship, built upon trust and communication, can facilitate a successful junior-to-senior transition outcome.

Moreover, practitioners can use this knowledge to identify potential facilitators and debilitators to transition and identify where specific intervention and support may be necessary to facilitate a successful transition outcome. Subsequently, this may result in support which is individually tailored to each athletes' needs. Athletes in the current study identified intervention strategies they perceived would facilitate a successful transition, such as mentoring. The intervention recommendations provided in this study may be a useful starting point for practitioners, clubs, and organisations looking to offer practical support to transitioning athletes.

As discussed, the current study identified a large number of organisational factors that were perceived to be debilitative towards athletes' transition outcomes (e.g., lack of support, no clear development pathway, the pressure to move to the high-performance centre). The information gained from this study may be used to inform the national governing body - British Athletics - on some of the challenges athletes are experiencing as they transition into senior sport and could then reassess their transition development and World Class Programmes and look to provide holistic and individualised support programmes to athletes as a result.

#### **6.4.5 Limitations and Recommendations for Future Research**

Although the present study is the first to perform a cross-sectional analysis of British athletes' junior-to-senior transition experiences, there are limitations which need to be considered. First, it is important to consider the population of the athletes interviewed in this study. All athletes were elite world-class athletes at some point in their careers, whether that was at a junior or senior level. Athletes of all abilities (e.g., club, county, national) can make

the transition from junior level to senior open-aged competitions. However, the demands these athletes experience throughout the transition period may vary, therefore, the sample used in this study limits the possibility of generalising these findings to other populations, including other sports and nationalities, although this is not the aim of the current study. This study identified significant cultural and organisational factors that negatively influenced athlete transition experiences; these findings are sport-specific and may or may not differ within other sports and national governing bodies. However, the in-depth data gathered from athletes in this study who possess a vast knowledge of the specific topic, may allow researchers, organisations, and stakeholders to draw parallels between the current study results and other athletes and sports (Patton, 2002).

As previously discussed, in the current study, a successful or unsuccessful transition was determined using performance markers; a successful junior-to-senior transition was considered when athletes went on to produce their personal best performance as a senior athlete and went on to represent the senior Great Britain team at major championships. One delimitation of this study is that the athletes' psychological health and wellbeing were not considered when determining if their transition was successful or not. It is possible that athletes could experience a positive performance transition but adverse psychological health and wellbeing or vice versa. Future research may look to athletes' mental health and wellbeing and determine the influence this has on athletes ability to negotiate the junior-to-senior transition.

A final delimitation of the current study is its retrospective nature. Athletes were recalling their experiences of the junior-to-senior transition from memory, which means athletes could have had difficulties accurately recalling some information regarding their transition. Therefore, to develop knowledge of the junior-to-senior transition, and factors that

facilitate and debilitator development, longitudinal concurrent research is needed to reduce the influence of retrospective recall bias.

### **6.5 Concluding Remarks**

The current study looked to understand the transition process from a sport-specific context (e.g., British track-and-field), to better comprehend the factors that can influence athletes junior-to-senior transition. The results from the current study revealed that the process of transition from junior-to-senior sport is unique and involves various factors which have the potential to aid or hinder athletes' progress. Both athletes who experienced a successful or unsuccessful transition were influenced by a range of individual, external, and organisational facilitators and debilitators. Despite many facilitators and debilitators being highlighted previously (see study 1), no research has previously cross-sectionally assessed these factors from the perspective of British track-and-field. The results from this study highlight similarities between the two groups of athletes - for example, athletes perceived there to be a considerable number of challenges concerning the national governing body and perceived a lack of organisational support. On the contrary, athletes who were successful in the transition discussed having access to a larger support network (e.g., coach, training partners) and psychological facilitators (e.g., determination, confidence, motivation) compared to their counterparts, who perceived various debilitators to their transition experience (e.g., lack of facilities, injuries, the coach, loss of motivation, competition behaviours) and appear to lack the individual (e.g., psychological attributes) and external facilitators (e.g., social support) that can be crucial when making the step up into senior sport.

## **Chapter VII – Study four**

### **A Longitudinal, Narrative Enquiry of Athletes’ Junior-to-Senior Transition in Sport**

## 7.1 Introduction

Previous studies in the current thesis have highlighted that there are many factors associated with the junior-to-senior transition (e.g., confidence, achieving a life balance, financial demands, increase in qualification standards from junior-to-senior). However, researchers have primarily studied the junior-to-senior transition in sport with the purpose to identify the associated demands, resources and barriers (Čačija, 2007; Lorenzo et al., 2009; Olsson, & Pehrson, 2014; Pummell, 2008). In addition, the transition literature has primarily employed qualitative methods such as interviews and case studies (e.g., Alge, 2008; Finn & McKenna, 2010; Pummell, 2008b; Pummell, 2008c). With a clear focus on interview and case study methods, in particular, the current research focuses on a specific snapshot of the process and does not capture athletes' perceptions over time (Morris, 2013).

Results from study 1 of the thesis showed that of the 27 studies included in the meta-study, only one study used longitudinal methods (see Morris, 2013c). Given this, limited information is available on how perceptions of the transition evolve or change over time. Moreover, the results from study 3 suggest that both successful athletes and those who are unsuccessful in making the transition into senior sport perceive several factors to influence their transition. However, one potential limitation of study 3 is that it employed retrospective interview techniques, which may, not only be influenced by recall bias but again, is not useful in identifying whether factors associated with transition changed over the transition period.

Based upon the potential limitations with the current literature and previous studies in the thesis a longitudinal design will be employed. Longitudinal research can be used to identify insights into athletes' perceptions of the junior-to-senior transition that may be otherwise undetectable from a single interview (Avey, Luthans, & Mhatre, 2008), whilst avoiding the limitations associated with retrospective research designs (Park, 2012).

In sum, to advance the literature on the junior-to-senior transition, the current study will explore the transition longitudinally to understand how athletes' experiences and perceptions may change during this process. The current study will explore athletes' personal narratives of the junior-to-senior transition. Specifically, the study will look to understand factors that influence athletes transition and identify any changes that occur during this period.

## **7.2 Method**

### **7.2.1 Design**

This study used a longitudinal research design to explore athletes' narratives of the junior-to-senior transition as they negotiated the process. Researchers (e.g., Morris, 2013) have suggested that the transition literature would benefit from longitudinal research methods as it allows a 'real-time' exploration of athletes' perceptions of the transition, and reduces the limitations associated with retrospective recall. A longitudinal perspective would take into consideration the moment-to-moment changes in athletes' perceptions that may occur during the junior-to-senior transition.

The current study design was also used to establish the perceptions of athletes who were at different stages of the transition. As explained in study 2, in British track-and-field, athletes move through the various age groups (e.g., under-15, under-17, under-20). Moving up into a new age category is based on age, rather than ability. The study looked to explore athletes' perceptions, longitudinally, from various points of the transition; junior, under-23 and senior.

### **7.2.2 Narrative Analysis**

Narrative analysis is a technique used to interpret the ways in which individuals perceive reality and make sense of their world. The purpose is to see how participants in various settings, such as the transitioning athletes in the current study, make sense of events,

actions, and relationships in their lives (Jowett & Frost, 2007). As outlined by Patterson (2013) “a focus on the participants’ narrative is likely to provide in-depth subjective data and reveal individual differences by seeking to interpret the meaning of the narratives and its importance for personal functioning” (pp. 27–28).

Narrative analysis may be a useful method for researchers looking to understanding complex, subjective experiences (e.g., the junior-to-senior transition) that unfolds sequentially over time to provide an overarching explanation (Smith and Sparkes, 2009; Woike, 2008). The narratives presented in the current study, represent a sequence of events that occurred whilst athletes were negotiating the junior-to-senior transition.

### 7.2.3 Participants

Longitudinal data from six athletes who were currently negotiating the junior-to-senior transition was collected. To be included in the research, athletes must be currently going through the transition, with two athletes to be included from each of the following phases of the transition:

- *Junior*: Athletes were tracked during their final season as a junior athlete. During the third interview, athletes were approaching the transition into their new age group as an under-23.
- *Under-23*: Two athletes were tracked during their final season as an under-23 athlete. During the third interview, athletes were approaching the transition into their senior age group.
- *Senior*: Athletes were tracked during their first or second year in the senior age group after moving up from the under-23 category.

Based on this criterion, six athletes (4 female, 2 male) were purposefully selected, aged between 18 and 24 years ( $\bar{x}$  = 20.5) at the time of the first interview. All athletes in the

study had represented Great Britain and or England at an international championships, whether that may be at a junior, under-23 or senior level.

The justification for using 6 participants for this study came from wanting to understand each of the three phases of the transition process (i.e. junior, under-23, senior) in track-and-field. Using six participants (2 from each phase of the transition) would result in 18 interviews being carried out during the study and would provide great detail into the individual experiences of each athlete as they negotiate the transition. Researchers have suggested that participants with an expertise in the research area can help researchers reach saturation quicker, and therefore a reduced sample size is possible. Similarly, studies that utilise multiple in-depth interviews with participants such as longitudinal methods can also reach saturation quicker (Jette et al., 2003; Lee, Woo, & Mackenzie, 2002).

As with the previous study, a sample size of 6 participants was deemed sufficient based on Malterud et al., (2015) notion of informational power based upon five dimensions: (a) study aim, (b) sample specificity, (c) use of established theory, (d) quality of dialogue, and (e) analysis strategy. The sample size was deemed appropriate considering that the study aim was narrow and participants held specific experiences and knowledge related to the research area with a strong interview dialogue encompassing three interviews over a twelve month period. Moreover, the study was supported by a strong theoretical background and an in-depth analysis.

As Patton (2002) stated if data saturation was not achieved by this point then further interviews could be conducted with athletes. However, by the second and third interviews clear threads were apparent from athletes' narratives and no key themes were being generated from further interviews.

#### 7.2.4 Procedure

After receiving ethical approval from the School of Sport and Exercise Science, Liverpool John Moores University, an information sheet (see appendix D) was given to participants outlining the purpose, risks, benefits of the study, and proposed procedure for data collection.

Informed consent (see appendix D) was sought from participants before data collection. Participants were then contacted via email or telephone to arrange a suitable time to be interviewed, with data collection beginning in June 2017. Prior to interview, participants were reminded that all data would remain anonymous and confidential via the use of pseudonyms.

Due to the exploratory nature of the study, interviews were deemed to be the most appropriate method of data collection (Sparkes, & Smith, 2014). The interviews were designed to explore athletes' perceptions of the junior-to-senior transition, specifically looking to elicit athletes' personal narrative of their transition experiences.

The interview guide developed for the study was loosely based upon the previous results in the thesis and focused on understanding athletes experiences of the transition. The main body of questions were related to (a) individual facilitators/debilitators, (b) external facilitators/debilitators, (c) cultural and organisational facilitators/debilitators , and (d) intervention strategies. The interview guide can be found in Appendix E. During each interview, the primary researcher engaged in active listening in an attempt to encourage and support the athletes to share their transition experiences and tell their story in their own words.

Interviews (n=3) with each participant took place over 12 months, with a total of 18 interviews. Interviews took place in June 2017, October/November 2017 and March/April 2018. The European athletics season approximately runs from May to September, therefore

the first interviews took place during the early stages of the competition season, the second interviews were carried out after the season had finished, and the final interviews took place as athletes were approaching the transition into their new age group and a new competition season. The time frame of these interviews was used to develop an understanding of athletes' personal narratives that can change over time as they approached the transition into a new age group.

All interviews were conducted face-to-face, except for one which was conducted via Skype, owing to geographical limitations (Louise - interview 3). Although face-to-face interviews were preferred to build rapport, the interviewer already had an established relationship with participants. Regarding the pre-existing relationships with participants, the interviewer competed internationally in track-and-field, and although would not identify as having a prior-relationship with all participants, they knew of one another from being immersed in the sport for several years. Insider research refers to when research is carried out with populations with whom they are also members (Kanuha, 2000). In this instance, the researcher shares a collective identity and language with the participants (Asselin, 2003). Although there should be careful consideration taken when interviewing participants with a pre-established relationship (McConnell-Henry, James, Chapman, & Francis, 2009), in this case, it allowed for a richness and depth of data due to the already established rapport and level of understanding on the topic.

Interviews lasted between 30 and 74 minutes ( $\bar{x} = 44$ mins), were audiotaped and on completion, interviews were transcribed verbatim.

### **7.2.5 Data Analysis**

Following transcription by the lead author, structural analysis was employed. Conducting structural analysis involved the following four steps; (a) immersion, (b) identify the plot and create a storyline, (c) naming narratives, and (d) writing the report (Sparkes &

Smith, 2014). First, the primary researcher became immersed in the data through the reading and re-reading of transcripts. The following step involved noting how events are connected and how the athletes stories are told in relation to their past, present and future (Sparkes & Smith, 2014). During this stage of analysis, storylines were identified for each athlete and were then given appropriate names. Following the identification of storylines, the ‘golden threads’ that were representative of athletes narratives of the junior-to-senior transition (e.g., injury, lack of motivation) are identified across all three interviews. Once the narratives have been identified the results are written up in chronological order to tell a story with a beginning, middle and end (Elliot, 2005).

Credibility was enhanced through width, credibility, transparency and sincerity (Smith & Caddick, 2012) as outlined in chapter 6. For example, Member checking was achieved by emailing athletes a one-page summary of the key narratives identified from the interviews and allowed participants’ to offer feedback and verify the interpretation of their responses. However, no participants wished to amend their results. Furthermore, to enhance credibility and transparency, thick description quotes have been included in the results section from all participants.

### **7.3 Results**

To provide a greater understanding of the experiences of athletes who are negotiating the junior-to-senior transition, outlined below are the stories of six athletes; Amy, Helena, Ralph, Isobel, Toby, and Louise. These stories highlight the individual factors that each athlete perceived as salient to them and their narrative during their junior-to-senior transition. Carrying out a series of interviews with the same athletes allowed for the observation of changes in individual athletes’ experiences of the transition. Each athlete will be presented below, with a brief background followed by a narrative of their transition experiences.

### 7.3.1 Amy's Story: Performance Stagnation and The Various Challenges

Amy was a junior athlete (u20) who finished the 2017 season ranked 19th in the UK in her age group for her discipline. She has represented England at the Commonwealth Youth Games and has competed at the European Athletics U20 Championships. So far, her best performance comes from the 2016 athletic season as she has not improved her personal best for three years. Amy has had some promising performances as a teenager but is currently not one of the leading athletes in the UK in her event.

During the first interview, when discussing the junior-to-senior transition, Amy did not perceive that the transition would be a significant event. Amy was a few years away from transitioning into the senior age group and therefore, did not think it was of particular importance, stating, "I think I have got to put it into perspective, and I think to focus on the bigger picture, like competing in seniors, is not important at the moment". However, four months later, Amy's perceptions of the transition had changed. Amy considered the move up to the under-23 age group, which she would do in 6 months or so, to be pivotal to her sports career, and now perceived this to be an added pressure, stating:

I don't know, I just think that, it is either make or break at under 23's. You either get to go to the championships and you go through to the senior level or you just kind of don't. I feel like British Athletics do put on a lot of pressure on the up and coming under 23's, and if you are not the best, I feel that you just get less and less support and attention or even any chance to go to big competitions.

Amy also discussed an increase in pressure on her to perform when she moves into the senior age group, which she did not perceive during the first interview:

Yeah, that's when it gets like serious. Now I have local sponsors, I am still young, but as soon as you get to like 22, 23, 24, there is always that expectation of making senior teams and it's not a hobby anymore, and you finish your degree or whatever, so

you kind of have to justify it in becoming an elite athlete. So, there's more pressure and it is kind of scary in that sense.

Instead, during the first interview, Amy expresses having a clear focus on personal progression within her sport. Amy believes it is important to focus on her own performance and not become concerned with the performances of other athletes. Amy believed that to keep improving beyond the junior age group and be successful as a senior athlete, she needed to focus on improving her own abilities, stating - "...to keep improving past juniors, you have to work on technique and work hard in training, not just rely on your natural ability". Again, this is a theme that is apparent through all interviews with Amy. Over 8 months later, Amy describes the importance of continuing to learn about her sport in order for her to transition successfully:

I feel like it's so important to be a student about your sport and to read. I really want to read more about certain things, so I know more about my sport. Just by reading more around athletics, and the body and stuff, so then when I get to a senior level, if I get to a senior level, I can just be able to think for myself a lot better than I did at juniors.

At this stage, Amy also discussed the importance of social support to assist her through junior-to-senior transition. Amy relied primarily on her family for support, especially her mother, who would often provide her with emotional and tangible support. Amy explained:

I think someone that has helped me is my mum. Because she will give me anything, if I don't have any money, she would give it me, or she will drive me everywhere to competitions, and she will pay for the hotel. I wouldn't be able to do that if it wasn't for my mum.

Amy also discussed the importance of social support from others including her relatives (e.g., uncle) and her training partners. Amy found it easy to confide in her training partners regarding some of the challenges associated with the transition, “you have got that common interest and it is kind of easy because you can talk to them about how you’re doing, and they understand”.

One of the first challenges to emerge for Amy during her transition, was a lack of support from the National Governing Body. During the first interview, Amy stated that the governing body did not care about her, or provide her with any support because she was not a potential medallist, stating:

Even the athletics body, they don’t really care about people. If you are not doing the best times then they don’t have any need to support you. Even if like I run a good time, but I’m not going to contend for medals then they don’t support you.

Amy felt that she needed to prove her worth to the national governing body by gaining selection on junior teams, even though she believed that this could be at the detriment of her long-term development. Amy stated:

I think you are almost seen as you’re not worth it if you don’t actually make the teams, especially in regard to funding. The standards are so high to make junior teams, so it’s like you have to work so hard just to make the team, you can then hurt yourself, get injured or just be exhausted. It’s all about being good right at that moment and not about the future.

Amy felt this was a challenge that continued throughout her transition. As a junior, Amy struggled to achieve the qualification standards for international competitions, now she was nearing the step up into the under-23 age group she was faced with even more difficult qualification targets to achieve. Amy perceived that the qualification standards were too high and the national governing body were not supporting her long-term development - “I think

British Athletics are very short-sighted in the stuff that they do. So, in setting qualification times that they set, it just kind of makes people peak like a lot earlier than they should do”.

Amy believed that having high qualification standards meant that many athletes were peaking too early:

Especially events like 400m. It’s such a hard race to run. You’re killing your body in the process. So, if you want someone to run a 54 or whatever, when they’re like 15 it is a bit of a joke. And especially when they’re then 20 or 22, and you’re questioned why you can’t run the same time. It’s just a massive like contradiction I guess of their whole selection policy. I think it’s ethically wrong.

During the next few months, Amy started studying for her degree at university. Amy had chosen to study at a university in the city where she lives so that she does not have to move or change coaches. Once starting university, Amy begins to struggle to balance the various spheres of her life and sport:

Yeah, it is quite hard, I don’t even have that much time, I have a nine-hour contract, which is nothing and I probably should do about 12 hours of reading a week. I feel like I have got myself into a vicious circle because I am prioritising training over everything, which isn’t a bad thing, I just need to give myself a timetable and stick to it.

Amy believes that balancing her education, sport and work is a significant challenge that she will need to manage during the transition period. Although Amy believes that she does well to balance her various commitments, it is made harder by investing so much time in her sport:

I feel like I do it well [balancing her time] but not well enough. So, I will be at university until 4 pm some days and I will work all the way up to like 7 pm then go home. Hopefully Saturdays I would do work all day. When it comes to deadlines, I’m

in the library until the early hours of the morning finishing it off, because I don't plan it very well. That's the problem. But I've chosen that doing athletics, it would be easy if I didn't do sport.

This is a theme that continues to run through the interviews with Amy. During the third and final interview, Amy expressed that she has not yet been able to achieve a good life balance:

I feel like I don't really have a good work, training, social life balance whatsoever, and I think it's kind of unhealthy at times athletics comes first really, and then I do my uni stuff, which takes up like quite a lot of time, and there's not much time left other than just to sleep.

The challenge of balancing her life during the junior-to-senior transition whilst negotiating the transition into higher education was a significant stressor for Amy. Amy expressed that she did not believe she had a healthy lifestyle:

Sometimes when me and my flatmates are making dinner, we'll talk for ages, but I always have to just go and do my work or go to bed, so I never really get a good enough time to talk to them, and not much time to relax, which I find is quite stressful. I stayed awake 'til quite late at night. Which again is not healthy, so it's like trying to find that balance. I think it just gets worse as I get older really.

### **7.3.2 Helena's Story: A Big Step up Followed by Self-Doubt**

Helena is one of the UK's most promising up and coming athletes and was deemed to be a rising star in the sport. Helena finished the 2017 season ranked 1st in the UK in her age group (u20) for her discipline and was subsequently ranked 3<sup>rd</sup> and 5<sup>th</sup> in the senior age group in 2018 and 2019 respectively. She is ranked first in the UK all-time list for her performance as a junior. By the age of 20, Helena had gained experience competing in international competitions including; IAAF World Athletics Championships (senior), Commonwealth

Games (senior), European Athletics U20 Championships, World Junior Championships and World Youth Championships. To date, her personal best performance comes from the 2017 competition season.

During the early stages of her transition, Helena reflected on the importance of her coach in facilitating her development into the senior ranks. The previous year, Helena had moved from her childhood coach to be coached by someone who had more experience in supporting athletes through the junior-to-senior transition and on to become professional athletes. Helena explained that she had moved to an experienced coach as she believed this would help her make the step up - “I changed coach because I think that’s what I need to improve so I trust that he can take me to that level”. Helena explained the reason for her change of coach:

With my old coach we just ran and stuff, we did a lot of running and he was really good. But I think that to take it to that next level we need someone that is more technical, that knows what they are doing, and our new coach has experience in the senior environment at senior competitions as well. So, I think that is really important for moving up to the next level.

Prior to the first interview, Helena had competed in her first international competition as a senior athlete for Great Britain, despite still being a junior. Helena had gained selection for the European Cup, which is not a major championships, but often seen as an opportunity to gain experience on the senior stage. Following this competition, Helena reflected on the standard of her competitors and perceived it was significantly better compared to junior competitions:

I competed in the European Cup. It was my first senior competition and, I remember my coach saying that every time I moved up, from under 13 to under 15 to now, the girls are going to be bigger and faster and you need to be prepared for that.

And it is so true for seniors, they are just a lot bigger, a lot quicker than I am and it is just kind of about getting yourself in the best possible position.

Helena also recognised that there was a big increase in qualification standards from junior-to-senior level - “It is a massive jump. The standards are much higher at the senior level, such a big jump in qualifying for a championships. That’s why it’s so hard to make it”.

Despite these perceptions, in the following months, Helena was selected to compete for Great Britain at her first major senior championships - the 2017 IAAF World Athletics Championship in London. Helena questioned her selection and did not feel like she deserved to be picked as she did not achieve the qualifying time. Since Helena was a promising young athlete and only missed the qualification by a small margin, the selection panel gave her the opportunity to compete at the World Athletics Championships and gain experience in the international senior environment. However, Helena struggled to come to terms with her selection and took these thoughts into the competition with her:

I felt like I didn’t deserve it because I didn’t run the time. I felt like I shouldn’t be there. I don’t know...If someone said it to me I was like thank you, I didn’t really take it as an opportunity, I just felt a bit weird about it, I think it’s because I felt that I didn’t earn my place, so I felt like I shouldn’t be there.

Competing at the 2017 IAAF World Athletics Championship, Helena described feeling intimidated by her first senior championships- “I think it was just easy to be intimidated by the overall experience and stuff and not really focusing on what I wanted to do”. Despite early senior experiences usually being associated as facilitative towards the transition (Hollings, 2014), Helena felt that competing at the World Championships had a negative influence on her self-confidence:

I just don’t think I gained a lot of confidence. I think the competition knocked my confidence a bit. I just felt really odd about it. I didn’t deserve to be there, and I

didn't do very well, and I just felt like, the whole environment of it, I just knocked my confidence.

Competing at the World Athletics Championship made Helena aware of the difference between junior and senior sport. Helena stated:

It's completely different, even the people. I could sit down on a table and talk to a random person at juniors, but I couldn't do that there. I just wouldn't do it. You just like talk to people at juniors and it just feels more like a community thing, but seniors isn't like that you know so you are kind of, on your own a bit.

During the second interview with Helena, she also discussed the sacrifices associated with pursuing a career as a professional athlete. Helena was transitioning into her second year of university and described feeling envious towards her friends at university and the lifestyle they were able to live. Helena stated:

I do always think that I would love to live the life my University friends live; it must be just so nice. I would go to a really cool university and do a course that I enjoy because I can do the work for it... I just can't do any of that. I envy them but I think about all the stuff that I get to experience... I just never really have fun.

Helena perceived it was important to keep focused on her sporting goals despite the sacrifices:

It's hard making all of those sacrifices that you are making, like a lack of social life, I guess most of my friends are at training, but just don't lose sight of your goal or else it is going to be really hard to keep making the sacrifices.

Following Helena's experience competing at the World Championships, another key theme that emerged over the following months, reflected Helena's concern about a lack of improvement. Helena expressed concern that she would not improve her personal best over the next few years whilst transitioning into the senior age group:

When people go to seniors and they just don't win anymore. I don't think winning is the problem I think it's just like if I don't improve, a lack of improvement. Like next year if I don't improve or the year after I don't improve. It would knock my confidence, I think that is the worst thing that could happen in the next two years like, it just makes you sad really and I don't want to be like that.

Despite running a new personal best earlier in the year -2017, Helena believed she under-performed at the senior IAAF World Championships later on in the year. This made her feel anxious that she will not be able to better her personal best performance - "I just feel like, I am not scared but I am just anxious in a way that I will never run what I did this season again, that will just irritate me". Helena emphasises how difficult she would find it if she was not to improve as a senior athlete:

I think that it is the hardest thing, but I guess sometimes you just come to a standstill.

That would be a really hard thing to cope with. I couldn't think anything worse than if I ran quicker as a junior than as a senior.

### **7.3.3 Ralph's Story: Injury Battle but Surrounded by Support**

Ralph is currently in the u23 age-group and finished the 2017 season ranked 3rd in the UK in the senior age group for his discipline. He is ranked first in the UK all-time list for his performance as a junior (u20). Ralph has achieved GB representation from junior up to senior level and competed at the European Championships (senior) Commonwealth Games (senior), World Junior Championships, European Athletics U20 Championships, and World Youth Championships. So far, his personal best performance comes from the 2018 athletic season.

Ralph first reflected on his perceptions of the junior-to-senior transition and, like Amy, did not perceive that anything would change stating:

I am excited, because obviously that's like senior, that's where you get down to business and then try and make more bigger competitions. I haven't thought about it

to be fair. I'm looking forward to it but I don't think there will be much difference, because the competitions are the same, except internationals, but I think it will be about the same.

Ralph believed there would be no significant changes during the transition because he has already had experience competing in senior championships and therefore has an understanding of the environment:

Obviously, I always compete with the big guys anyway, so it is like I already am senior to be fair, it is just an extra championships that are involved, but I do think sometimes that I am in the seniors already.

During the first interview with Ralph, he expressed the importance of social support in aiding his transition and progression through the senior ranks. Ralph was currently injured but looking to recover in time to compete this season. When asked whom he relied on for support during the rehabilitation process, Ralph stated - "My coach and my friends at training to be fair. I mean, they are always there for me, so that's a big part, it's a big deal for me to have that". Ralph described having access to a large support network and rather than relying on one or two people, he had a number of people who were important sources of support. Ralph explained:

Everyone to be fair, I mean everyone I've talked to about my problems, they have been really supportive so it's not one specific person it is more a bunch of people because I know they are all there for me which is really good. Yeah so like my training partners, and I have friends that I can talk to, other athletes, and obviously my parents support me too.

Another source of support for Ralph during his rehabilitation process was a sport psychologist. Ralph described seeking support from a sport psychologist to develop techniques to cope with his injury during the transition period:

Yeah, it was good to talk to be fair, I mean we were just talking about what I can do in case I get stressed or because I have nearly lost a whole season because of this injury. But we had a talk about good techniques and things like that. It was really helpful, more helpful than I thought it would be.

Moreover, Ralph receives financial and tangible (e.g., kit) support from the national governing body and his sponsors - Nike. Ralph believes the financial support he receives is crucial to help him cover the costs associated with competing:

I'm on funding so I do get money, but that goes on my petrol and things like that, and it pays for competitions abroad as well, so my flights, that pays for all that and then the hotel, for British Champs this weekend, that has all been paid so, I won't have that bill.

Ralph also highlighted the benefits of receiving sponsorship from Nike:

I'm lucky, because this is just me, but I'm on Nike sponsorship so kit is not an issue, if my spikes ripped I've got 4 more pairs, if someone else spikes rip then, or if someone else's equipment breaks they might not be able to get it straight away because it is expensive.

Following the next few months, Ralph's injury deteriorated and what was first believed to be minor developed into a serious injury that ended his competitive season- "...unfortunately I have had a bad back for a while and it turned out to be more serious than we thought, so unfortunately my season ended just after BUCS [British University Championships]". Due to the severity of the injury, Ralph perceived that he was going to miss out on selection for a number of senior championships that were coming up, which would have been his first senior championships and an opportunity to gain senior championship experience:

I had so many Championships to look forward to, you know, pending selection obviously, there was Commonwealth Games and the World Universities and Europeans. I qualified for all of those, it was supposed to be a good season but, I can't help what happened, so.

Over the ensuing months, Ralph missed the IAAF World Championships in London for which he had already achieved the qualification standard, which was a considerable disappointment. However, Ralph recovered in time to compete at the 2018 Commonwealth Games in Australia and was selected to compete at his first senior championships which he perceived to be a significant milestone in his junior-to-senior transition:

It's my first senior vest, I have always been a junior so getting my first senior vest is nice. It feels good to know that I have got to this milestone. You know some people like kind of dip after juniors, but I've made it and I'm going.

Ralph describes positive feelings such as excitement as well as feeling some nerves approaching his first senior championships:

I am looking forward to it and looking forward to the challenge and not being classed as a kid anymore, so it is good to be recognised as an adult athlete, so I really look forward to it, I am excited to be a senior but the obviously nervous because I want to keep to that standard and better.

Throughout all of the interviews, Ralph emphasised the importance of social support as he makes the step up into the senior ranks. As Ralph has experienced an injury, physiotherapy support was particularly important to him - "...the first couple of weeks were tough, but then I got into my rehabilitation met with some great physiotherapists, they have been so helpful and supportive, and it's gone really fast I think". Ralph continues to rely on his family for support:

Well, my family support me, I live rent free, so that saves me money. Yeah exactly and I always have a meal prepared for me and I have a roof over my head, that's it, the biggest support I could possibly get from them.

Ralph also appreciated the support his parents provided him, especially when approaching his senior debut:

Yeah, my parents are really supportive as well, like I said they're are coming out to Australia to support me and I mean that is expensive for one and it's a long way as well, so it means a lot for them coming out. They have always been there for me when my training is going crap, they are always there for me giving me advice.

Ralph's friends, training partners and coach were all a source of support for him when coping with his injury - "Friends and support you know from everybody, they have all been great, all my training partners and things like that, it's made it a lot easier". Ralph also spoke about the bond he has with his coach:

He is not only a coach but also as a friend as well, you know when you just need someone to talk to, he is always there but then when we are getting down to graft, he is ready, we are ready to go for it together.

Ralph emphasised the importance of having a good support network around him - "Social support I think is important, you need to have a good circle around you so you can be a good person as well as a good athlete".

As Ralph now makes the transition into the senior age group he reflects on an underlying confidence in his abilities to achieve success as a senior athlete, stating:

I believe myself, I know my ability, that's my confidence, obviously it comes from experience as well you know, I've been to Championships and done well in finals, and that has helped build it but it's in me. That is not me being big-headed, it's just me, I know I can do it.

### 7.3.4 Isobel's Story: An Environment Lacking in Motivation

During 2017, Isobel finished the season ranked 48th in the UK for her discipline in the senior age-group. Isobel has experienced success in the junior and u23 age group where she gained selection for the World Junior Championships and European U23 Championships and produced some promising performances. So far, Isobel's personal best performance comes from the 2016 athletic season and has struggled to reproduce her form from the junior age group.

Isobel will be transitioning into the senior age group during her next competitive season and does not perceive that there will be as much pressure on her to perform in her first year as a senior:

I think that especially because it will be my first year as a senior, there is still not much pressure, whereas if I was 4 years in, I would be like, right, you have got to try and make a mark.

Despite this, Isobel still identifies an increase in pressure as the sport becomes more serious in the senior age group:

There is a bit more pressure that I need to sort my life out now like, you know get going otherwise you have got to get a proper job. But yeah, I am excited. I think maybe because it is getting more serious than it is when you are younger.

Isobel recently withdrew from her course at university to focus on pursuing a career as a professional athlete which would allow her to train full time with no distractions:

I had to choose between uni and athletics, so I chose athletics which I definitely don't regret, I thought at the time leaving university I was definitely going to regret this in a year or 2 times, and so far I don't regret it, maybe in 10 years' time I might regret it but right now I definitely don't.

Isobel made the decision to drop-out of university so that she could fully commit to her sport and have no regrets:

I thought athletics is not going to put food on the table. What if nothing comes of it? but then at the same time, I know I would always regret not trying. I know that I would always regret not trying. At least I can say, you know I gave it my all. And if it didn't work out, at least I know that I gave it my all.

Despite choosing to focus exclusively on her athletic development over the upcoming years, a constant theme that was evident throughout all interviews was that Isobel lacked motivation towards her sport. After experiencing success at a junior level, Isobel has failed to replicate her achievements on the senior stage which has influenced her levels of motivation. Isobel reflects on her experiences since competing at the World Junior Championships, stating:

Since then nothing has really happened, so I think that is what has made me lose motivation. Nothing has happened since then, whereas if it was an ongoing thing, like, another championships to do next year. But I think because I have had such a long gap of not doing anything, I've lost motivation. Yeah basically. I don't have any goals to work towards, other than to run fast, but no championships.

Isobel has not made the improvements she would have liked, which is influencing her motivation - "It's hard to maintain your motivation when you are putting in the work and you are not getting much out". Isobel believes this loss of motivation is influencing her levels of effort at training - "I feel like I should be putting in more effort at training, but because I don't like it, I'm not". During following months, Isobel made the decision to move away from home and join a new coach and training group. Isobel believed that her lack of motivation and enjoyment of her sport was due to her training environment. Following the

move to London, Isobel was much happier in her new training environment and reported feeling more motivated:

I feel like since I have moved to London I have been enjoying it more. it is just a totally new environment, and I am socialising more and having more fun, but as well, the training group is bigger and I have got more people to train with and for me, my motivation has got so much better, and motivation is a massive key.

Isobel reflects on the changes in her motivation after moving coach and having new training partners to motivated her and support her through training sessions:

I just wasn't motivated to train before, because I just could not be bothered. But I feel like now I have got so many people surrounding me and like motivating me it's a lot easier like, I actually enjoy going training. I don't feel like as scared of the pain of training sessions because I have got people with me to push me through it.

After moving to London to join a new training group, Isobel is negotiating her first year competing in the senior age group. Despite previously suggesting that there would not be any significant pressure on her to perform, Isobel now perceives that there was more pressure on her now that she is a senior athlete:

I feel like I should have been doing it years ago, but I feel like now I have put more pressure on myself. I feel like in previous years I have always wanted to do better obviously, but as the years have gone by the pressure has been building more and more. Yeah, the pressure is building more and more and right now the pressure is just at its highest and it's getting to a point where it is really affecting me, not in a negative way just motivating me more.

Finally, Isobel believes this is a crucial year in her development and progression into the senior ranks - "I feel like now this year is make or break for me, I can't be doing this

forever and not getting anything out of it when I could be doing a full-time job and earning money”. Isobel also reflected:

I actually feel more nervous this year than any other year. Just because I really feel like I have...not prove but, I feel like I have just been moving so slowly these past four years and I haven't really done any decent times or dropped a significant time. So, I feel like if I am going to do it, I need to do it like, now, soon because time is ticking.

### **7.3.5 Toby's Story: Are the Sacrifices Really Worth it?**

Toby has represented Great Britain at the European Junior Championships and England at the 2014 Commonwealth Games. Toby finished the 2017 season ranked 5th in the UK in the senior age group for his discipline. He followed this by finishing the 2018 and 2019 competition season ranked 3<sup>rd</sup> and 2<sup>nd</sup> in the senior age-group respectively. Toby is ranked 9th on the UK all-time list for his performance as a junior. Despite these achievements, Toby has failed to progress his performance for many years, with his personal best performance coming from 2014 when he was aged 22. Due to a lack of progression during the transition years, Toby is feeling an increasing pressure to find his form and justify his commitment to his sport. Toby has also questioned his participation, “I start to doubt myself because I have been stuck at the same level or slightly below that level for the last 2 or 3 years. It's hard to stick at it when I'm not progressing”.

The overwhelming barrier that Toby perceived to his transition was a lack of support. During the first interview, Toby was able to identify a number of potential sources of support (e.g., parents, siblings, friends, girlfriend, coach, national governing body) but felt he did not receive appropriate support from these sources:

My parents, they understand athletics, but they are quite negative and critical. So is my brother and sister. My friends... well, most of my friends and my girlfriend, they

try to be positive, but they don't really understand what position I am in and they just think that I should just be alright and that I should just get over it when it's not going well.

Toby also reflected, that despite his parents taking an interest in his sport and his performance, he perceived that they were too critical and negative when he under-performed which has also influenced the way he evaluates his own performance:

My parents aren't very good at giving me positive support. That's probably why I tend to be quite negative with my thoughts because of how I was brought up. They always wanted me to do well, but if I did badly, they would basically tell me that I did badly.

In addition, another significant challenge Toby perceived to influence his transition into senior sport related to a lack of coaching provision. During his junior years, Toby had a coach who he believed could support him during the junior-to-senior transition and help him to improve. However, since 2015, Toby's coach stated he was no longer able to support him and they parted ways:

I got to the stage where I didn't have a coach and I thought what am I going to do? Can I do it on my own? I don't know if I can. I just felt like giving up at one point because I thought well no one wants to help me, and I don't know if I can do it on my own.

This was a challenge that became more and more difficult for Toby to manage during the transition. Over the upcoming months, the lack of coaching provision had meant Toby often felt unmotivated to train which he perceived was a contributing factor to his lack of progression and caused him to question his commitment:

Because I am self-coached no one knows what I am doing because most of my training is on my own, so no one knows if I am going to go and train today, I could

just drive home and not do anything. So that's a bit tough but I try and force myself to do all the training. Even if I am not really up for it that day, I will just try and make sure, because I know it is important to do it.

Toby has regularly been one of the top athletes in the UK for his event and has recently won national medals. Despite this Toby has had no support from the national governing body and perceives that they do not care about his development, stating:

As far as I am concerned British Athletics don't really care about the athletes they have got or the athletes they had as long as they have got someone to fill someone else's place next time. So, after I competed for Great Britain at a junior level, I received absolutely zero communication off British Athletics ever since that competition and I have not spoken to them since. So, I have not really been in communication with British Athletics since 2011, which is ridiculous really since I am British Champion.

Toby believes that the lack of support from the national governing body is not only influencing his ability to transition but also a number of other athletes. Toby reflects that this lack of support has caused a number of his GB junior teammates to drop out from the sport:

Well the athletes on my team, we didn't really get any help from British Athletics, like we all have either given up and quit because we have got no support, and we have just got fed up of it all and not making it and not getting any help to help us make it, that we have all just dropped out.

The lack of support is a theme that runs through all of Toby's interviews. During the third and final interview, Toby once again recognises a lack of support from the national governing body, "I've sort of done everything on my own really, well not on my own, but with family support, but I've had nothing from a national governing body, they've not done

anything to help me”. Toby explains how he has had no communication with British Athletics despite currently being ranked number 1 in the UK for his event:

If I stopped athletics now – as in right now, today – I don’t think anyone would really care. As in like British Athletics-wise, which is a bit annoying. Because if you think – I was British Champion last year – in fact, I’ve not been spoken to by anybody, from the national governing body – no-one’s even spoken to me – which is a bit ridiculous really, because I’m their best athlete.

When asked about what type of support he would like to receive from the national governing body to make his transition into the senior ranks smoother, Toby stated:

I’d like regular massages to reduce the chances of injuries happening in the first place, maybe once a week, that would be a nice ... but I can’t afford that. So, I have to do it once a month. maybe a little bit of psychological support as well, for my motivation, confidence, things like that.

Toby perceives that the consistent lack of support throughout his transition has had a number of implications on his progression. Toby suggests that a lack of tangible support has caused him to experience considerable financial pressure throughout his transition years. After leaving university in 2014, Toby has had to manage part time employment alongside his training regime which he has found very challenging - “...as soon as you’re out of uni, you’ve got to earn money, you need to be able to live, so you’ve got to get a job, which is what I’ve done, but it’s not easy to do around training”. Toby reflected further on this over the next few months of his transition:

The financial pressure is probably one of the big things for me and why a lot of athletes drop out because they have to live. Because I am not getting funding or supported, then I have to work as well to keep doing athletics. So, I had to start working part-time. Whereas full-time, I thought it was going to be too much for me. I

was mentally and physically fatigued to train properly, and I would probably get drawn away from doing athletics if I went full-time.

Over the past twelve months Toby has been finding it particularly difficult to balance employment alongside his sport – “...it’s really hard, especially if you have been working all day and most jobs are always in the middle of the day like, obviously 9-5pm”. Again, Toby sometimes felt his sport was holding him back in other areas of his life (e.g., relationships, buying a house, establishing a career) and was finding it hard to justify his participation when he was not improving:

I still can’t ...sort of get on with my life ... not that I don’t get on with my life, but I can’t like do anything worthwhile until athletics is over really – unless I got a full-time job, but then I’d struggle to train that much. I’m hoping before I’m 30 to have my own house. And the longer I do athletics, the less likely to happen.

### **7.3.6 Louise’s Story: Organisational Stressors Leading to Career Termination**

Louise was currently one of Great Britain’s up-and-coming prospects. Louise burst onto the international scene in 2015, when during her first year after leaving the junior age group she won an unexpected European silver medal in the senior championships. Before reaching the senior age-group, Louise has already recorded a time that ranks her 7th in the UK all-time list in the senior age-group and has realistic ambitions of going to the next Olympic Games – “I have just always wanted to go to the Olympics that’s my goal and I believe that the moment in my life will happen when I go to the Olympics”

During the first interview with Louise she spent time reflecting on her transition from junior-to-senior level. Louise was currently injured but had already been finding the transition challenging prior to her injury – “I lost my love, I lost my motivation so actually I felt like I was just doing the sport because there was nothing else I knew”.

During the previous year, Louise had made the decision to change coach and move to a new city in an attempt to successfully make the step up into the senior ranks and gain selection for the Olympic Games in Rio. At the time, Louise believed that a new coach, with experience in supporting athletes through the junior-to-senior transition, was what she needed to be successful. However, over several months, the change in coach and training environment did not suit Louise and she felt this was having a negative influence on her progression and transition - "I was affected by the change of coaches, that I thought was going to be for the better, but just didn't work out for me". Louise went on to state that the relationship did not fulfil her needs:

We didn't understand each other, and it was just different methods of coaching I think, and it just didn't work for me. He was a different style of coach, and I think I need more one-on-one stuff.

In addition, to the challenging relationship with her new coach, Louise also perceived her new training group was not what she needed to make the transition into senior competition. Specifically, Louise was now training with a number of her senior competitors, whereas prior to the move she trained on her own and received one-on-one attention from her coach:

I always trained on my own, so I think adapting to the new group, I think made a big difference. Not any of the members of the training group, because I actually quite like the social side, but the side of where me naturally as a competitor, I felt like I walked away from sessions feeling like I could have done better. Because I compared myself to my direct competitors. And then like it was like why aren't I doing that, you know. It just felt like, even if I felt like I did something really good in that session, is that it was so easy overridden, it was so easily forgotten, because of all the other senior athletes in the group.

Throughout the next few months the transition became even more challenging for Louise. After a number of consultations with the doctor, Louise was told that she needed to have surgery to recover from her injury. Due to the surgery, Louise was looking at a significant rehabilitation programme of 6-12 months. When Louise picked up her injury it made her question whether she had committed too much to a career in professional sport, stating:

It did make me sit there and think, did I make a wrong choice of committing too much to athletics, like have I given too much time because right now I am lost, I don't know what else in the world I can do, and you know, I have given all my time to it. Yeah, it was a good eye-opener.

Since the first interview with Louise, the national governing body performed their annual review of performance funding and had made the decision to no longer support Louise. Reflecting on her time on funding, Louise believe that she was not given enough support during her crucial transition years:

I am never ever going on national funding again, I would refuse it. I thought I was going to be supported and the dynamic can change so fast, that it is uncomfortable. I don't like the fact that control is taken away from me. They're in control and it just doesn't work, I don't think it's professional, I don't think they are clear enough, there is not enough clarification on what they want from you.

The lack of support from the national governing body was influencing Louise's recovery from her injury and subsequently her transition outcome. When Louise was on funding the doctors employed by the national governing body performed the surgery to place screws in the injured part of her body. However, a few months later, Louise was no longer on funding but needed to have the screws removed, which the governing body were refusing.

Louise perceived that the national governing body did not only provide her with inadequate support during the transition but were also negligent, stating:

At British Athletics, I have had loads of problems with them with this surgery and everything. They tried to pull out and not do the surgery to have the screws removed. I was on funding when I had the surgery, and now I was off it they didn't care, I wasn't their problem. Even though everyone knew from the beginning that if the screws go in, they have to come out. I was like that is just negligent.

Louise believed when she was on funding there was a pressure to return to sport as quickly as possible from her injury, - "...since I was on funding, every injury I got, it was like 'I need to get back quickly' Because I need to make this team, and it is always such a short game, it was too much pressure". Louise went on to state:

I think what is lovely, now I'm not on funding is there is no pressure, I don't need to get back in a year's time, I don't need to be back in the next six months, there is no one pressuring me, I am not aiming for anything, I am just aiming to come back and be healthy and we will take every day from that point on.

Despite perceiving there to be a number of shortcomings regarding the support from the national governing body, Louise also felt scared to report it to anyone outside of the sport. Louise had raised the issues with management at the national governing body but after unsatisfactory responses felt apprehensive about taking it further to an external organisation because it might jeopardise her place in future senior championships:

I think another thing that really scared me was, if you kick up a fuss, because there isn't like a HR department, there isn't anyone separate, it does worry you that you think, is this down the line going to really affect me, because I am now complaining and fighting against people that select the Olympic Team.

With the lack of support and the demands of having to cope with a long-term injury,

over the following months Louise made the decision to quit the sport:

I've taken a step away from the sport now, I've stopped training, it was all too much and I wasn't enjoying it. I didn't see the point in doing something that I wasn't enjoying like it made me miserable and my mental health was suffering too really.

Louise was a world-class athlete, whose current personal best would be good enough to qualify her for future Olympic Games, however, due to the number of challenges she was experiencing she felt she was not able to make the transition. Louise once again spoke about the lack of support from the National Governing body which she perceived to hinder her attempt to transition into the senior ranks. Louise perceived that the governing body did not support her enough during her injury- "It's so performance focus, and I can't perform now after my injury, so they aren't interested". Louise elaborated:

British Athletics made everything hard for me coming back from my injury. They performed surgery, kicked me off funding and then I had no one to support me in the rehab or for the follow-up surgery, knowing that those are the people who are meant to help you, and they just did nothing, it was like what is the point. It was awful, they made me feel worthless, and I wasn't useful to them because I was injured. That is what it came down to.

Now that Louise has retired, she has focused on developing her identity away from the sport. Louise believed that during her transition years she committed too much to her sport which influenced the development of other areas of her life (e.g., relationships, career) – "I made a wrong choice of committing too much to athletics like I was lost in that period at seniors when I was injured, I was so alone and no direction". Finally, Louise reflected on starting a new chapter away from competitive senior sport and leaves her goals of becoming an Olympian behind her-

I am happy now; I am more than an athlete. I've got a really cool job, been travelling and I'm messing about doing other sports, like more for fun but like I still can push myself and get a bit competitive, but yeah I'm much happier now. Still scary not doing track anymore, but it's exciting to start this new chapter.

### **7.3.7. Changes in athletes' experiences of the junior-to senior transition**

The results demonstrate that the factors associated with transition from junior-to-senior track-and-field are not fixed and can change at any phase of the transition process. This is an assumption that was also proposed by the individual, external, cultural model of the junior-to-senior transition (see chapter 4) and is highlighted most explicitly throughout this study. The new model proposed that athletes are met with numerous transition variables including individual and external factors, all of which may have a dynamic influence on athletes' transitions into senior sport. In addition to the 'golden threads' within each athletes' narratives, what is also clear is that athletes are still having to balance numerous other factors associated with the transition (e.g., pressure to perform, financial demands), which were constantly changing during the interview periods. For example, Isobel identified one of her biggest challenges of the transition as finding the right environment and coach that motivated and inspired her. Despite this being a common thread throughout her interviews, Isobel still had to cope with a number of other factors associated with the transition such as - finding a new coach, moving to a new city, developing new relationships with her coach and training partners, earning a sustainable income, increasing motivation, maintaining social connections with her family - all of which were in constant flux, with different factors being more salient at different interview periods.

## **7.4 Discussion**

The purpose of the current study was to explore athletes' narratives regarding the junior-to-senior sport in British track-and-field athletes. Specifically, the study looked to

explore athlete's personal narrative of their transition experiences, including factors that influenced their transition and identify any changes in perceptions that occur during the various phases of the transition.

As highlighted in the results above, throughout the transition period, athletes identified various factors that are facilitative and debilitative towards the transition outcome. For example, some of the factor's athletes perceived to facilitate their transition included social support, focusing on personal progression, and developing a sport-specific knowledge. Whereas, factors that were perceived to hinder the transition included an increase in pressure to perform, lack of support, and a lack of motivation. The longitudinal interviews with athletes identified a number of common factors that were perceived to influence the junior-to-senior transition.

First, all athletes discussed the role of social support during the junior-to-senior transition. A number of athletes highlighted the influence of social support and identified a number of key members of their support network. Athletes in the first two stages of the transition (Amy, Helena, Ralph and Isobel) identified that their support network mainly comprises of parents, family, peers (including training partners), and coaches. These findings align with Wylleman and Lavallee's (2004) model, which suggests that athletes between the ages of 13 – 20 rely on peers, parents, and their coach for social support. However, athletes in the latter stages of the transition; Toby and Louise, did not place much emphasis on the social support they received. Both Toby and Louise did not perceive their parents to be sources of support; Toby perceived his parents to be too negative and excessively critical about his sport and Louise stated her parents were not a crucial source of support. Both Toby and Louise perceived this diminished support network to be a hindrance to their transition. Four athletes also referred to a lack of support from the national governing body. This was a particular challenge for both senior athletes (Toby and Louise), who expected to receive more

organisational support than they did, during this stage of their career. A lack of organisational support could be particularly challenging for those athletes further into their transition when they rely less on parental support and look to their coach or organisation to provide them with the support and resources they need during the move.

The coach was identified as a key agent in the junior-to-senior transition and could be both facilitative and debilitating. All athletes in the study perceived that having a coach who provided appropriate social support (e.g., emotional, informational) could aid the transition outcome. Five out of the six athletes interviewed had recently moved to a new coach who they felt were better suited to support them during the junior-to-senior transition. For some of these athletes, a change of coach was perceived as a positive experience (e.g., Amy, Helena). For example, moving to a new coach and new training group appeared to have a substantial influence on Isobel's motivation to continue with her sport and make the transition into the senior ranks.

Whilst a number of athletes identified their coach as a positive influence during the transition, the coach has the potential to hinder an athlete transition if the athlete perceives there to be a lack of support, trust, and understanding of the transition process. Moreover, athletes perceived that not being able to find the right coach to work with was having a negative influence on their attempts to be successful in the senior age-group. Some athletes had difficulties finding the right coach, or even a coach at all to support them during the transition. For example, Louise felt pressure to move to a new coach after receiving funding from the national governing body. Louise perceived her relationship with her new coach and training environment did not suit her needs and returned to work with her previous who had since engaged in coach education. Moreover, a number of athletes believed that educating coaches on their role and how to best support athletes during the transition could facilitate a more successful outcome.

Another challenge of the transition recognised by all athletes in the study was represented by a difficulty in managing their life around sport. The challenges athletes identified as difficult varied depending on the phase of the transition they were in. Athletes at the earliest stage of the transition (Amy and Helena), primarily identified having difficulties managing university demands and their social life around their sport. At the time of the interviews, both Amy and Helena prioritised their sport over their education and social life, but perceived they were missing out due to their sport commitments.

Interestingly, both athletes (Ralph and Isobel), who were at the middle point of the transition phase, and less than one year away from becoming a senior athlete, had recently dropped out of university to focus on pursuing a career in athletics. Isobel describes trying to balance university and sport as one of her biggest challenges. Ralph had also quit university to become a full-time athlete and believed that he had a good life balance. As with Amy and Helena, Ralph and Isobel appear to have prioritised their sport and have committed to pursuing a career as an athlete. However, one barrier to the transition can arise when athletes chose to abandon their education to pursue a sporting career (Werthner & Orlick, 1986). Both Toby and Louise, who are now senior athletes, were looking towards the future and considering their life away from the sport. Toby and Louise recognised that they might not become successful senior athletes and were having difficulties trying to balance their sport around, work, developing a career away from the sport, and starting a family.

All athletes in the study identified some difficulties in balancing their sporting commitments with other life domains. It has appeared from the interviews, that those athletes who have recently made the transition into the senior age group, may have more awareness and understanding of the challenges of becoming a senior athlete, and therefore have actively started exploring and developing their life away from their sport, whether that may be in terms of career, relationships, and education etc. Athletes in the earlier stages of the transition

have primarily focused on their sport, and certainly prioritised their sport, with two athletes leaving university before completion to pursue a career as a professional athlete.

Although there are some recurring or similar factors that athletes have identified (e.g., social support, national governing body), the results also suggest that the factors that influence the junior-to-senior transition can be different for each individual, as can their interpretation of these factors. For example, all six athletes discussed the perceived increase in pressure when transitioning from junior-to-senior level. Athletes at the earlier stages of the transition (Amy and Helena), described an excessive amount of external pressure on successful junior athletes to make a quick transition into the senior ranks. Whereas, athletes who were older and further along in the transition timeline perceived the increase in pressure to be internal, came from their own self-expectations and a need to successfully make the step up into senior sport.

The results suggest athletes perceived the pressure to continually increase as they moved through the junior and under-23 age groups, with the most pressure to perform being in the senior age group. This increase in pressure may come from athletes changes in perceptions of what sport means to them, with their sport being more fun at a junior level and then becoming more serious and professional at the senior level. Athletes perceived the pressure to increase each year that they failed to improve their personal best as they did not feel they could justify their continuation in the sport, and the sacrifices that they were making across their life, whilst not improving in their athletic discipline.

For example, Isobel had discussed the increase in pressure she had felt throughout the transition. During the early stages of her transition Isobel did not think there would be any pressure on her to perform as a senior because she was still a young athlete. However, during the final interview, Isobel felt like there was more pressure on her to make the transition and produce a good performance to justify her continuation in the sport.

These results also highlight how athletes can interpret challenges of the transition differently. For example, some athletes perceived the increase in pressure to be debilitating towards their transition (e.g., Toby, Louise) whereas another athlete might use this pressure to motivate them during training (e.g., Isobel).

These variations in perceptions of the transition could be due to a number of individual differences such as; athletes' upbringing, background, previous sporting experiences, and availability of resources (Morris, 2013). For example, in the current study, both Ralph and Louise experienced a significant injury, that put an end to their hopes of competing in the upcoming season. Although both athletes were disappointed by the injury, both had different reactions to it. Ralph remained extremely determined and saw the injury as an opportunity to learn alternative skills. Whereas, Louise's injury eventually led to her prematurely retiring from the sport. Although both Ralph and Louise displayed normal but differing responses to experiencing an injury (Putukian, 2016), the availability of resources was also a notable different between each athlete.

The critical factors identified from Ralphs interviews were primarily resources (e.g., social support, self-belief). Ralph emphasised the importance of his support network during all three interviews carried out during his transition. Ralph recognised the importance of his support network and was also able to identify a number of sources (e.g., family, coach, training partner, sport psychologist) and types (e.g., emotional, tangible, informational) of support that he had available to him during the transition. On the other hand, Louise highlighted a lack of support from the national governing body and difficulties in developing an effective coach-athlete relationship with her new coach. Seeking social support from significant others has been identified as the most prominent behavioural response to experiencing an injury (Clement, Arvinen-Barrow, Fetty, 2015). As suggested in the interviews, Ralph appears to have access to a wider support network than Louise, which may

have influenced their interpretation of the injury, and their ability to cope with it - ultimately influencing their junior-to-senior transition. The availability of the resources can also have an influence on how well athletes are able to cope with the demands associated with the transition (Stambulova et al., 2009). Therefore, individual variation in athletes' perceptions should be considered when making the transition into senior sport. Previous research has failed to recognise individual differences when negotiating the transition and instead have focused on giving an overall, broad representation of athletes' transition experiences (e.g., Bennie, & O'Connor, 2006; Morris et al., 2017).

The results from the study not only suggest that the factors influencing the transition can be interpreted different between athletes (e.g., increase in pressure), but also the factors that athletes experience may constantly be changing throughout the transition process. Previous research on career transition in sport, specifically retirement, suggests that the factors associated with transitions are always in flux rather than fixed (Stambulova et al., 2009; Torregrosa, Ramis, Pallarés, Azócar, Selva, 2015). For example, athletes in the current study were not affected by one factor consistently throughout their transition; instead, it was a dynamic interaction between many different challenges and resources at different moments of the transition.

Previous retrospective research has identified potential demands, resources, and barriers associated with the junior-to-senior transition but many have failed to recognise that these factors may be continually changing and evolving throughout the process (Bruner, et al., 2008; Hollings, et al., 2014b).

One strength of the current study was that it was able to track athletes' perceptions longitudinally across various phases of the transition, identifying changes and adjustments in athletes' perceptions. This was a key finding from the study that supports the assumptions of the individual, external, cultural model of the junior-to-senior transition developed in a

previous study in the thesis (see chapter 4). The new model highlighted that the junior-to-senior transition is a complex and dynamic process, rather than a stage based process, which may occur over a period of months or years. Athletes will experience and be influenced by various factors at different times throughout transition. The current study allowed us to more fully understand these assumptions presented in the model and develop a greater understanding of the transition and how athletes perceptions of this process may change over time. For example, during the first and second interviews, Isobel identified many challenges she was experiencing while trying to make the junior-to-senior transition, including a lack of motivation and problems with the coach-athlete relationship. A few months later, during the final interview, Isobel had moved coaches and was feeling positive about her training environment. Once Isobel identified some of the challenges she was experiencing (e.g., break down in a relationship with coach), she was able to employ strategies to overcome these obstacles (e.g., move to a new coach). This example is an illustration that athletes' perceptions of the transition are continually changing throughout the process. This process may be continuous for athletes approaching the transition into senior sport (Morris, 2013). For example, athletes may perceive a barrier to the transition, but can utilise the suitable resources to cope. Following this other challenges may become more pertinent which again will require the effective coping mechanisms.

Another potential significant finding from the longitudinal data, suggests athletes did not believe anything would change when moving from junior-to-senior sport. As identified in the individual, external, cultural model of the junior-to-senior transition (see chapter 4), prior to the transition athletes may be faced with transition preconditions. During this phase there is an identification of the athlete as potentially having the opportunity to be successful as a senior athlete or wanting to compete as a senior athlete. Despite all athletes in the current study self-identifying that they want to make the step up into senior sport, they appear to lack

clarity about what the transition would involve (e.g., transition variables). During their first interview, all athletes except one, perceived that being a senior athlete would not be any different to competing as a junior or u23. The only athlete that perceived that there would be changes during the junior-to-senior transition was Helena, who had competed at the senior World Athletics Championships as a junior athlete and had first-hand experience of what it would be like competing in the senior environment. Helena was able to identify a number of challenges when making the step up into senior sport (e.g., competitors are bigger and stronger, qualification standards are higher, senior sport is more serious, increase in pressure to perform).

Despite Toby and Louise suggesting nothing would change during their transition into senior sport, both athletes identified a number of challenges that they had experienced thus far during the transition (e.g., lack of support from the national governing body, being self-coached, financial pressures, sacrificing other areas of their life). Toby and Louise were in their first or second year of the senior age group and because of this were much more aware of the demands of the transition compared to their younger counterparts. As suggested from the interviews, a number of athletes during the earlier stage of the transition were more focused on their athletic discipline (e.g., 100m) and what is needed to improve in their event (e.g., technical improvements) but were not considering or aware of the internal and external challenges that come with making the junior-to-senior transition (e.g., managing different spheres of life, financial demands).

As athletes experience the competitive senior environment it is likely that they will develop their awareness and understanding of the transition. For example, Louise's' perceptions of the transition evolved over the three interviews. During the first interview Louise perceived that there would be no significant changes during the transition. During the second and third interviews, Louise was now aware of just how difficult the transition was

and spoke about the number of challenges she was experiencing trying to break through into the senior ranks (e.g., lack of support from the national governing body, sport was too consuming) which ultimately contributed to her quitting the sport. Morris (2013c) found that athletes who demonstrate avoidance coping strategies are not able to anticipate any demands associated with the junior-to-senior transition 6 months before the transition which led to feelings of panic 1 month prior to the transition, which can have a negative influence on adjustment to transition. Therefore, it is possible that if Louise, and the other athletes in the study, were able to identify and pre-empt the demands associated with the transition prior to their move, they could experience an increase in readiness and adjustment to transition.

Moreover, despite five athletes perceiving that nothing was going to change during the transition into the senior age-group, all of the athletes described wanting more education and support about the transition. Athletes identified the need for education on the transition to develop their understanding of facilitators to the transition (e.g., what can I do to make the transition smoother?), and debilitators to the transition (e.g., what makes the transition harder?). The introduction of educational programmes, where athletes are informed of the challenges associated with the junior-to-senior transition, may help promote awareness amongst athletes across all stages of the transition. Athletes can then build up their coping resources to manage the challenges associated with the transition (e.g., social support, goal setting), which may help them negotiate the junior-to-senior transition (Morris, 2013; Stambulova, 2011).

#### **7.4 1 Applied Implications**

The study has a number of applied implications to be considered. First, one of the key findings from this study highlight that athletes' perceptions of the transition process were not fixed, but rather it is continually evolving. By developing an understanding that athletes' perceptions may be dynamic, key stakeholders may be able to identify and implement

suitable coping strategies promptly to support athletes going through the junior-to-senior transition. If athletes perceive a debilitating factor to their transition but can utilise the appropriate resources to cope with the demand, athletes may be able to overcome this challenge and continue with the transition. For example, Isobel's biggest challenge was a lack of motivation, which could have been caused by problems with the coach-athlete relationship. However, Isobel was able to effectively cope with this challenge and move to a more suitable coach, which subsequently increased her motivation and enjoyment of the sport.

It was also suggested in the study that athletes further along the transition process were able to identify a larger number of challenges to their transition. This knowledge and awareness can come from having more experience in negotiating the transition and competing at a senior level. Therefore, athletes at earlier stages of the transition and approaching the transition may benefit from educational interventions. Educational interventions have found to be useful in preparing athletes for the transition out of sport, as well as within-career transitions such as the junior-to-senior transition (Lavalley, 2005; Pummell & Lavalley, 2019). Interventions should aim to support athletes by educating them on relevant skills, appropriate knowledge, and development of self-efficacy for the transition (Danish et al., 1995). For example, by educating junior athletes on the importance of social support and benefits of various internal resources during difficult times of the transition, athletes may be more likely to seek out social support and use appropriate resources during these times of challenge.

#### **7.4.2 Limitations and Recommendations Future Research**

The present study has some limitations which need to be considered. Although it was clear from the results of the current study that athletes' perceptions of factors that influence their transition change throughout various moments of the process, it is not clear how often or

why these perceptions change (e.g., there is no understanding of how athletes' recent competition performance may influence their perceptions of the transition). Also, the current study was not able to identify which athletes were successful and unsuccessful in making the junior-to-senior transition. For more clarity regarding athletes' changing perceptions throughout the transition, future research may look to examine the process across a longer timeframe, following athletes through to a successful or unsuccessful conclusion. This research could help to identify how often athletes' perceptions change during the transition, while understanding how athletes who were both successful and unsuccessful were able to cope with the challenges of the process at various points.

Another limitation of the present study is that it had a small number of participants who were not randomly recruited. All six athletes in the study had achieved international representation for Great Britain and were currently negotiating the junior-to-senior transition in track-and-field. Therefore, the results might not be generalisable to other populations, although this was not the aim of the study. However, the rich, in-depth data that was gathered from these specific athletes who have a vast knowledge of the topic area might allow researchers and practitioners to discover parallels with other sports (Patton, 2002).

Finally, the results might have been influenced by social desirability (Patton, 2002). For example, two athletes from the current study were currently in receipt of funding from the national governing body; therefore, they may not have given candid answers in fear of the implications such as fear of non-selection or loss of support. To try and overcome this, all athletes were informed of the right to confidentiality before each interview. In addition, my insider role, as an athlete, allowed for more rapid acceptance from participants. This can typically lead to more openness from participants so that there may be a greater depth to the data obtained (Dwyer & Buckle, 2009).

### **7.5 Concluding Remarks**

Previous research, and studies 1 and 3 in the current thesis, have identified some factors that can influence athletes' transitions into senior sport. However, much of the previous research does not address changes in athletes' perceptions that may occur throughout the transition process, hence the need for a longitudinal examination of the junior-to-senior transition. This study has highlighted several important considerations associated with the junior-to-senior transition in sport. First, the factors perceived to influence the transition vary amongst individuals. For example, a factor that one athlete perceives as particularly challenging (e.g., increase in pressure to perform) may not be identified by another athlete. Individual variation in athletes needs to be considered when negotiating the junior-to-senior transition. Also, the current study highlights that the factors associated with the transition are dynamic, and they are constantly changing throughout the process. The results may help practitioners understand the dynamic process of the junior-to-senior transition, specifically, how athletes perceptions can evolve and change during the course of the process. Furthermore, the results from this study may lead to the development of interventions to prepare athletes for the transition into senior sport by educating them on the challenges associated with the transition and support them in developing effective coping strategies.

## **Chapter VIII- Study Five**

# **The Junior-to-Senior Transition in Sport: An Intervention to Support the Transitional Process**

## 8.1 Introduction

The findings from previous studies of the thesis have highlighted just how challenging the junior-to-senior transition can be for many athletes. Study 1 (see chapter 4) outlined the large number of factors (e.g., social support, organisational stressors) that have the potential to positively and negatively influence the outcome of transition. These findings were supported by studies 3 and 4 which specifically explored the factors that were pertinent to British athletes during their transition. The results highlight the number of demands athletes are faced with during the transition and are expected to be able to manage and cope with to make a successful step up into the senior ranks. Moreover, a growing body of empirical research has highlighted the difficulties athletes have experienced in adjustment when coping with career transition in sport (Lavallee, Nesti, Borkoles, Cockerill, & Edge, 2000).

The second study in the thesis explored the performance progression of elite British junior athletes who have competed at the World Junior Championships, to establish if they go on to make a successful transition into the senior ranks. The results of the study demonstrate that British track-and-field athletes are finding the transition into the senior environment challenging with many athletes unsuccessful in their attempts, while the national governing body is not improving in their ability to retain talented junior athletes.

Throughout the thesis, athletes have identified the need for further support during the transition, through the delivery of interventions. Interventions can be used to prepare athletes for the transition through education and skill development. In recent years, researchers have focused on understanding the demands associated with the junior-to-senior transition, as well as the various coping strategies, personal resources and environmental support that can facilitate the transition (e.g., Čačija, 2007; Mills et al., 2012; Morris et al., 2017). However, there has been limited use of interventions to better support athletes through the transitional

process. Studies on the junior-to-senior transition have cited the need for future research in this area of transition – calling for research which focuses on the design, implementation, and evaluation of empirically informed interventions with the intent to assist athletes making the step up into the competitive senior environment (Morris, 2013; Stambulova et al., 2009).

According to Alfermann and Stambulova (2007), there are three intervention approaches when supporting athletes with career transitions: (1) crisis coping, (2), negative consequences coping, and (3) preventive. Crises-coping interventions help athletes to analyse their current situation and identify effective coping strategies to help with negative transitions (Alfermann & Stambulova, 2007). Examples of crises-coping interventions can include group workshops with athletes experiencing similar transitions, stress management, education interventions, mentoring, and cognitive restructuring (Morris, 2013). Negative-consequences coping interventions are designed to help athletes to deal with the negative consequences associated with ineffective coping with a crisis-transition, which most often results in clinical symptoms. Clinical symptoms may occur at any point throughout the transition and can include, but are not limited to, depression, anxiety, substance abuse, eating disorders and suicidal thoughts (Morris, 2013). Preventative interventions help athletes to prepare and become more aware of the associated demands and resources of the forthcoming normative and non-normative transitions (Stambulova et al., 2009). Preventive interventions may include goal setting, education, counselling, career planning, life skills development, and developing a support network (Alfermann & Stambulova, 2007). Preventive interventions help athletes to understand any potential barriers that may hinder their transition, while also aiding the development of new resources and coping strategies (Stambulova, 2010). Much of the research utilising preventive intervention strategies have focused on preparing athletes for retirement from sport (Alfermann & Stambulova, 2007). There is, however, a lack of research

implementing and evaluating the effectiveness of preventive interventions in assisting athlete through the junior-to-senior transition.

Over the past 30 years, several sport governing bodies, national Olympic committees, and sporting federations have delivered programmes aimed at supporting athletes in career transitions (e.g., United States Olympic Committee, Canadian Olympic Association). Many of these programmes are implemented to support athletes to achieve a balanced lifestyle by coordinating other activities with their sport participation (Morris, 2013). Wylleman et al. (2004) described career transition programmes as focusing on the development of social, educational, and work-related skills, and the development of transferable skills that can assist athletes in transition, specifically those experiencing retirement. These programmes comprise of a combination of workshops, seminars, educational modules, and individual counselling, which can combine preventive interventions with crisis coping and clinical interventions, if necessary (Stambulova et al., 2009). In summary, there have been many programmes delivered by organisations to support athletes going through sport transitions. However, a majority of these interventions have focused on supporting athletes through their transition out of competitive sport. In comparison, there is a lack of research assessing the effectiveness of interventions specifically targeted to support athletes negotiating the junior-to-senior transition in sport.

Despite the prevalence of literature highlighting the challenges associated with the junior-to-senior transition, there has been scant research which focuses on addressing these challenges through intervention. Pummell and Lavalley (2019), were the first to develop, implement, and evaluate an intervention programme specifically for the junior-to-senior transition. The intervention was delivered to seven UK tennis academy players and focused on developing resources, knowledge, and readiness to cope with the transition. The intervention took a symbolic modelling approach, where informational support was provided

by senior tennis players in the form of pre-recorded videos. The results showed that participants in the study identified the intervention as valuable in preparing them for the transition, as well as indicating increases in knowledge, coping, confidence and transition-related skills. However, it was suggested that the intervention would benefit from the support of qualified sport scientists who can support athletes to interpret the information provided by the role-models and develop effective coping strategies.

The current study aimed to identify an approach to facilitate athletes' transition from junior-to-senior sport. The purpose of the present study was to: (a) develop an intervention program, based upon previous findings in the thesis, to prepare and facilitate athletes for the junior-to-senior transition, and (b) to implement and evaluate the effectiveness and perceptions of the intervention.

## **8.2 Phase 1: Development of the Intervention Programme**

### **8.2.1 Research-Informed Intervention**

A preventive intervention was designed to support athletes to develop their knowledge and appropriate resources to facilitate a successful transition.

The structure and content of the intervention was also informed by prior research and previous studies in the thesis. For example, findings from the meta-study highlighted several factors that could influence the junior-to-senior transition outcome and provides a comprehensive list of the potential facilitators and debilitators associated with the transition. By having an understanding of the factors that can facilitate or debilitate the transition, this gives the researchers a starting point for the development of an intervention programme. For example, social support has regularly been cited in the thesis as a crucial resource for transitioning athletes. Athletes who have access to appropriate social support perceived this to facilitate their junior-to-senior transition. Therefore, based on this knowledge, the

intervention may look to include a mentoring programme, or education on the provision of social support and ways to develop an effective support network.

Based upon previous findings in the thesis, the purpose of the intervention strategy is to: (a) provide athletes with appropriate education in order for them to manage sport and non-sport demands whilst negotiating the transition, (b) educate athletes on the importance of social support whilst providing athletes with opportunity to develop their support network (e.g., mentoring), and (c) support the holistic development of athletes in both their sporting and non-sporting lives.

**8.2.1.1 Education.** Throughout the current thesis, educational programs have been identified as an effective intervention strategy that could facilitate the junior-to-senior transition. Results from study one of the current thesis described that athletes' perceptions of the transition might influence their transition outcomes. Previous research suggests that if athletes perceive the transition to be more complicated than it is, underestimate the challenge they are experiencing, or have a lack of understanding about the transition process, then they are likely to experience a more difficult transition (Morris, 2013). Pummell et al. (2008) emphasised the importance for athletes to understand the transition demands, while having realistic expectations of the process. Athletes and key stakeholders believe knowledge and understanding of the transition process can benefit athletes and their perceived readiness to move into the senior age group (Bruner et al., 2008; Morris et al., 2016). Similarly, Bennie and O' Connor (2006) suggested that it would be beneficial to provide athletes with information on 'what it takes' to be successful on the senior stage during the transition process. Therefore, one of the key focuses of the intervention is to provide athletes with appropriate informational support to raise awareness and understanding of the potential challenges during the transition, as well as strategies to manage them.

Athletes in studies 3 and 4 of the current thesis emphasised the need for educational programmes to support athletes making the transition into senior sport. Athletes who had experienced the transition felt that they would have benefited from education regarding the challenges associated with making the step up into senior sport. Athletes described wanting informational support on topics such as nutrition, recovery, financial advice, time management, performance lifestyle, and injury prevention/management. Athletes also discussed the use of sport psychology support to facilitate athletes' transitional experiences, and the importance of developing knowledge of the psychological skills that can aid the transition. Types of education that previous research and athletes in the current thesis perceived would facilitate their development during the transition included -general education on the transition, nutrition, physiology, psychology, time management, financial management, and recovery/injury prevention (Hollings, 2014b; Morris et al., 2015; Morris, 2013; Pummell, & Lavallee, 2018).

**8.2.1.2 Social Support.** When considering the crucial resources for transitioning athletes, social support has consistently been reported as one of most salient facilitators to the junior-to-senior transition (Alge, 2008; Bennie & O'Connor, 2006; Čačija, 2007; Franck, & Stambulova, 2018a; Morris, 2013; Pummell et al., 2008). Study one of the current thesis identified social support as an external resource, and identified many salient sources of support (e.g., family, coach, parents, peers, teammates). As hypothesised by the new model presented in the previous study (see chapter 4), athletes with appropriate social provision are more likely to have a successful junior-to-senior transition, which was supported by athlete interviews in subsequent studies in the thesis. Educating athletes on how and why social support could facilitate a successful transition from junior-to-senior level may encourage athletes to seek out this help during the transition (Morris, 2013).

The quality of athletes' relationships with their parents and coaches is believed to be one of the most important factors when attempting to succeed in sport at a professional level (Cranmer & Sollitto, 2015; Knight, Berrow, & Harwood, 2017). Therefore, both parents and coaches were encouraged to be involved in the intervention, were educated on their role during the transition and what type of support athletes want from them during the transition process. As Wylleman and Lavalée (2004) suggested in their model, the athletes support network generally consists of parents, coaches, and peers. Until approximately 13 years old, athletes rely on their parents as the most influential source of support, followed by siblings. As athletes approach the transition into the senior ranks, relationships with peers and coaches became the most influential in their development. The intervention looked to inform parents and coaches how their roles may change throughout the transition into senior sport and discuss strategies how to best support athletes not only with their sporting interests but also their non-sporting identities (Stambulova et al., 2009).

In addition, a number of athletes throughout the thesis perceived they would have benefitted from having support from a senior mentor to guide them during the transition. Mentoring involves a relationship in which a mentor counsels, guides, and supports a protégé (Hardy, 1994). A mentorship programme provides junior athletes with the opportunity to learn about the transition - such as expected behaviours and the fundamental skills and knowledge they will require in senior sport (Morris et al., 2016). Athletes who have exposure to role models or senior mentors are more likely to experience a successful transition because they develop a better understanding of what is expected of them (Bruner et al., 2008). As previously mentioned, Pummell and Lavalée (2019) designed and delivered an intervention programme to support junior tennis players making the transition into senior competition. The intervention involved the use of mentors/role models who educated junior athletes on the relevant skills and knowledge, as well as guiding expected behaviours at a

senior level. Athletes who took part in the intervention program demonstrated an increase in readiness and knowledge of the junior-to-senior transition.

Similarly, findings from study 3 in the current thesis also identified mentoring as a potential strategy to facilitate the transition. Both athletes who were successful and unsuccessful highlighted the importance of mentoring and having a senior athlete to emulate. Athletes perceived they would benefit from being able to confide in a senior athlete, as well as receiving advice from them regarding the challenges associated with the transition. Athletes also expressed a desire to hear from athletes who had been successful and unsuccessful in making the transition into senior sport.

Therefore, athletes who took part in the intervention were given the opportunity to receive support and advice from senior sport mentors. Junior athletes were able to learn through observing and interacting with senior mentors and understand the types of behaviours and attitude it takes to be successful in senior sport.

**8.2.1.3 Holistic Development.** Another key focus of the intervention is that it takes a holistic approach, emphasising the importance and development of the individual, not exclusively the athlete (Henriksen, Stambulova, & Roessler, 2010). The intervention was designed to facilitate the development of transferable skills. In sport, transferable skills are those acquired through sport participation and can be applied to other areas of athletes' lives aside from sport (McKnight et al., 2009; Mayocchi & Hanrahan, 2000). Example of transferable skills include setting goals, effective communication, and the ability to perform under pressure (Papacharisis, Goudas, Danish, & Theodorakis, 2005).

Both the athletic career transition model (Stambulova, 2003) and the developmental perspective on transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational levels (Wylleman & Lavallee, 2004) emphasise the importance of taking a holistic view of athlete development. Wylleman and Lavallee's (2004) model represents a

holistic approach to athlete development because it considers the coinciding transitions that occur external to sporting transitions. During the junior-to-senior transition, athletes may also be in the process of moving from adolescence into young adulthood, as well as simultaneously experiencing academic transitions when moving from secondary to higher education. Therefore, athletes may be able to utilise these transferable skills (e.g., goal setting, planning, time management) to achieve a balance between the demands and facilitate coping with transitions both in and outside sport (Stambulova et al., 2009).

The current intervention looked to support the individual and not just the athlete - in this sense the intervention aimed to support and encourage athletes to develop a number of skills and strategies that will help them cope more effectively with transitional demands that they will experience both in and outside of sport.

In sum, the intervention strategy is to: (a) provide athletes with appropriate education in order for them to manage sport and non-sport demands whilst negotiating the transition, (b) educate athletes on the importance of social support whilst providing athletes with opportunity to develop their support network (e.g., mentoring), and (c) support the holistic development of athletes in both their sporting and non-sporting lives. A more detailed description of each intervention session is outlined below.

### **8.2.2 Intervention Contents**

Based on previous research and findings from the current thesis, the following intervention programme was designed. As mentioned, the intervention focuses on the holistic development of the athlete through appropriate knowledge and skill enhancement that can facilitate the junior-to-senior transition. The structure and content of each workshop in the intervention are described below in more detail. See table 8.1 for an overview.

#### **8.2.2.1 Session One: Talk: A Successful Transition by Dame Jessica Ennis-Hill**

**and A Challenging Transition by Matthew Lambley.** The purpose of this session was to allow athletes to communicate and learn from athletes who had experience negotiating the junior-to-senior transition in track-and-field. Receiving informational support and advice from role models is a critical component which can facilitate a successful transition (Pummell & Lavalley, 2019).

The intervention looked to create a safe forum for athletes to share their thoughts and feelings. Petitpas and Champagne (2000) suggested this could be accomplished in the first session of the intervention by having a role-model self-disclose their personal experiences of the transition process. Therefore, role-models, Dame Jessica Ennis-Hill and Matthew Lambley were asked to reflect on their journey and what it took for them to become elite performers.

The session involved a brief introduction from the role-models - Dame Jessica Ennis-Hill and Matthew Lambley - followed by a question and answer session. Questions were targeted around gaining information about the junior-to-senior transition and understanding some of the challenges these athletes experienced and how they dealt with these issues (e.g., did you find senior competitions different to junior competitions? How? What advice would you give to young athletes making the transition?). Junior athletes were allowed to ask questions to the senior athletes.

Dame Jessica Ennis-Hill and Matthew Lambley were chosen to discuss their journey because Jessica had experienced a successful transition, whereas Matthew had experienced a much more challenging transition, which ultimately resulted in him leaving the sport prematurely. Providing junior athletes with a comparison between a difficult and successful transition gave athletes a fuller picture and understanding of the transition process.

**8.2.2.2 Session Two: Personality: Understanding your Personality (Spotlight profile).** The second session of the intervention involved a personality profiling tool called

Spotlight. Spotlight is a psychometric tool that is designed to evaluate certain aspects of personality (Ong, 2018). In this case, the goal of the Spotlight personality tool is to help athletes broaden their understanding and perception of their personality so that they can flexibly find solutions to thrive in sport and life (e.g., performing under pressure, communicating effectively with their coach). Before the session, all athletes completed the online questionnaire and received their personalised spotlight profile at the session where they received a full debrief on the content of the profiles.

#### **8.2.2.3 Session Three: Performance Lifestyle: Financial Advice/Planning.**

Financial demands and challenges associated with the transition was a recurring theme that emerged throughout the thesis. The purpose of this session was to provide informational support regarding (a) current sponsorship, scholarship, and grant opportunities; (b) advice when applying for financial support; (c) strategies to manage finances when at university; and (d) tips for saving money (e.g., apps, coupons, student cards).

#### **8.2.2.4 Session Four: Performance Lifestyle: Effective Time Management.**

Another important factor identified in the current thesis and previous research referred to athletes' ability to achieve a life balance and effectively manage their time between their sporting and non-sporting commitments (e.g., education, work and social life). The purpose of this session was to provide athletes with strategies to manage their time effectively (e.g., goal setting, organisation strategies), which may be used as a resource to cope with some of the demands of the transition (e.g., increase in the frequency of training, balancing sport alongside university education).

**8.2.2.5 Session Five: Sports Psychology: Coach-Athlete Relationship.** The purpose of this session was to help increase athletes understanding of how to effectively communicate with their coach, how to build a good working relationship with their coach, and how to cope with any potential coach conflict. This session was exclusively for athletes to allow them to

share their thoughts and feelings around their coach-athlete relationship. Coaches were invited to a later session in the intervention.

#### **8.2.2.6 Session Six: Sports Psychology: Building Confidence for the Transition.**

The sixth session of the intervention programme looked to develop athletes' psychological attributes, specifically confidence. This session focused on educating athletes on self-confidence (e.g., what is self-confidence? Where do you get your self-confidence from?), while providing them with strategies to maintain and build their self-confidence, such as goal-setting and self-talk (Durand-Bush & Salmela, 2002; Hays, Maynard, Thomas, & Bawden, 2007). These strategies may be used in both a sporting and non-sporting context. For example, athletes used goal setting to set targets in not only their sport, but also their education (e.g., exams). Athletes also took part in reflective tasks, such as considering where they get their confidence from and what damages their confidence.

**8.2.2.7 Session Seven: Physiotherapy: Looking After your Body During the Transition.** The purpose of this session was to provide athletes with informational support regarding best practice for managing and maintaining their body through the transition into senior sport. This session was delivered by a highly experienced physiotherapist who has worked with a number of Olympic Champions including Kelly Holmes, Jessica Ennis-Hill, and Alistair Brownlee. The session involved guiding athletes through a group physical screening which allowed athletes to identify any physiological weaknesses for which athletes were given basic exercises to prevent potential future injury. Athletes were educated on how their body might change and mature through the transition years. Also, athletes were educated on the Relative Energy Deficiency in Sport (RED-S; Mountjoy et al., 2014).

**8.2.2.8 Session Eight: Mentoring: Learn from Experienced Senior Athletes.** The purpose of this session was to provide athletes with an introduction to the mentorship and assign them a senior athlete mentor. Having a senior athlete as a mentor can facilitate a

successful transition into senior sport through the provision of informational support and guidance. This can help athletes feel more ready to negotiate the transition by developing their knowledge of the transition process (Bruner et al., 2008; Pummell & Lavalley, 2019; Stambulova et al., 2017). Junior athletes were assigned a mentor, who, where possible, took part in a similar athletic discipline. The mentors were - Laura Weightman (1500m), Joe Dunderdale (Javelin throw), John Lane (Decathlon), Jess Taylor-Jemmett (Heptathlon) and Matthew Lambley (Hammer throw). All of the mentors had experience of competing at a senior international level, including at Commonwealth and Olympic Games. During the session, athletes and mentors took part in tasks to develop a relationship and rapport, while allowing athletes to get to know their mentor better and understand their journey into elite sport. Towards the end of the session, all mentors took part in a group discussion and question and answer session to allow athletes to hear from all mentors. The group discussion focused on exploring senior athletes use of psychological skills (e.g., self-talk, visualisation, goal setting) when competing in the senior environment.

**8.2.2.9 Session Nine: Social Support: Supporting your Athlete through the Transition – Strategies for Coaches by Toni Minichiello.** The purpose of the ninth session of the intervention was to provide informational support to coaches about how to best support their athlete through the transition. Athletes and their coach were invited to attend the session, with the aim of the session to encourage an honest and open coach-athlete relationship (Hollings et al., 2014). As highlighted in the literature, and previous studies in the thesis, coaches play a pivotal role in supporting athletes through the transition (Bruner et al., 2008; Franck, & Stambulova, 2018a; Stambulova et al., 2017). Hollings (2014) also supported the notion that coaches were crucial in facilitating the transition and recommended that opportunities should be provided to educate coaches on the demands of the transition to ensure they are prepared for and can adapt to the needs of the athlete.

Toni Minichiello, coach to Jessica Ennis-Hill, delivered this session and spoke about his own experiences of supporting an athlete from a young age through to the senior world stage. Toni Minichiello also took part in a question and answers session which prompted discussion amongst the group. Questions asked from coaches and athletes during the session included; how did he cope and support his athletes to balance life at university?, how did he cope with the pressure and expectation to be successful?, how did he plan for Jess's long-term development and avoid burnout?. Although the junior athletes' coaches were only involved in one session of the programme, this session was an opportunity for up-and-coming coaches and athletes to hear from an elite coach with expert knowledge regarding the transition (Cushion, Armour, Jones, 2003)

**8.2.2.10 Session Ten: Nutrition: Fuelling your Body during the Junior-to-Senior Transition.** The tenth session of the intervention programme was focused on delivering informational support to athletes around nutrition in sport. Nutrition education programmes usually target dietary issues, promote optimal health, and develops athletes' knowledge in general and sport-specific nutrition practices (Heaney, O'Connor, Michael, Gifford, & Naughton 2011). This knowledge can be used by athletes throughout the transition into senior sport and beyond to ensure they are using best practice to maximise the opportunity for successful performances. The programme was delivered by a qualified sports nutritionist who worked at the English Institute of Sport. The session provided basic educational advice around fuelling training and recovery strategies, as well as education on the use of sports supplements and the risk of drugs in sport. Athletes who have a greater knowledge of nutrition may translate this into a better dietary intake (Heaney et al., 2011). Therefore, the use of an educational intervention, during the transition process, to inform athletes about the best nutritional and supplementation practices, may help optimise athletes' development and improve performance (Nieper, 2004).

**8.2.2.11 Session Eleven: Social Support: Supporting your Athlete through the Transition – Strategies for Parents.** The influence of parental support for athletes negotiating the junior-to-senior transition in sport has been regularly cited in the literature (e.g., Mills et al., 2012; Morris, 2013; Morris et al., 2015; Olsson & Pehrson, 2014). In order for athletes to be successful in making the transition into senior sport, parents must understand children's need for social and emotional support (Wuerth, Lee, & Alfermann, 2004). This session, therefore, aimed to allow parents and athletes to express their needs during the transition while helping parents develop an understanding of the demands associated with the transition and how they can best support their child. Athletes have also suggested they feel more prepared and comfortable to make the junior-to-senior transition when their parents had a better understanding of the transition process (Morris et al., 2015). The session was delivered by a trainee sport psychologist, who also had a background in competing in track-and-field. All athletes were asked to bring a parent or guardian along to the session with them. During the session parents and their child collaborated to identify demands and challenges associated with the transition, which lead to the development of 'what if' scenarios, which can be a useful technique to cope with specific events (Thatcher, & Day, 2008). For example: What if your child performs badly at a competition? What type of support do they want from you? What might the car journey home look like?

**8.2.2.12 Session Twelve: Talk: My Transition into Elite Swimming by Jay Lelliott.** Session twelve of the intervention programme was an opportunity to hear from an athlete from another sport and their experiences of the junior-to-senior transition. Jay Lelliott is Great British Swimmer and has also experienced some challenges (e.g., injury, health issues, decrease in performance) when negotiating the step up into senior sport. Jay shared his experiences with the junior athletes on the programme and discussed how he achieve a balance between the different domains of his life (e.g., education, sport, social life).

### **8.2.2.13 Session Thirteen: Sport Psychology: Goal Setting for the Transition**

**Period.** Session thirteen of the intervention focused on goal setting for the transition period. Studies 3 and 4 of the thesis identified a need for athletes to be able to be patient during the transition and plan for long term development. Hollings (2014) suggest that national governing bodies should consider goal-setting as a pre-emptive strategy for athletes approaching the transition so that they can cope more effectively with the increase in pressure and expectation as a senior athlete. Therefore, the purpose of this session was to educate athletes on the use of goals to identify targets throughout the transition process. The session was delivered by sport psychologist, Dr Robert Morris, who provided information to athletes around types of goals, how to set ‘good’ goals, and phrasing of goals. Athletes spent time contemplating and identifying their own goals for the transition.

### **8.2.2.14 Session Fourteen: Sport Psychology: Coping Strategies to Manage the Transition.**

The final session was delivered by Dr Robert Morris and focused on discussing coping strategies to manage the transition, with the aim to reflect on the new strategies athletes had developed over the course of the intervention. It is necessary to develop athletes who can cope with a wide range of challenges that may come as a result of the transition, such as selection for senior team, loss of funding/sponsorship, and a lack of organisational support (Mills et al., 2012). Many psychological skills can be taught to optimise athletes sporting and non-sporting development (e.g., stress management, goal setting, time management; Weinberg & Williams, 2001). Athletes were encouraged to reflect on what they had learnt throughout the programme, and any coping strategies that they believed could facilitate their transition. The purpose of this session was to assist athletes for their future transition by developing the appropriate coping skills and knowledge.

### **8.2.2.15 Optional: Sport Psychology: One-on-One Support.**

In addition to the

intervention programme, athletes were offered free one-on-one sport psychology support from either myself or Dr Robert Morris. Sport psychology provision has been identified by athletes in several studies in the thesis as being an important component in aiding athletes transition experiences. Many athletes who took part in the previous studies in the thesis, perceived that they would have benefitted from receiving sport psychology support as they transitioned into senior sport. Research suggests that intervention programmes designed to support athletes' transition should be multidimensional in nature and look to include education, appropriate social support, and a counselling component (Petitpas, Brewer, & Van Raalte, 1996).

### **8.2.3 Intervention Workbooks**

All athletes that took part in the intervention were given a workbook that was designed by the author (available on request). The workbook contained a course outline, a brief outline of the upcoming workshops, a description of presenters, role-models and mentors, resources (e.g., goal setting worksheet, list of sponsorship opportunities), pages to take notes, and intervention feedback. Athletes were given a second workbook to use during the mentoring session (available on request), which contained recommended tasks and questions for athletes to ask their mentors to start to develop their relationship. Also, coaches and parents were provided with a workbook that described the intervention programme explaining why the programme has been developed (available on request).

## **8.3 Phase 2: Implementation and Evaluation of the Intervention Programme**

### **8.4 Method**

#### **8.4.1 Participants**

Following ethical approval from the School of Sport and Exercise Sciences, Liverpool John Moores University, participants were recruited via a purposeful sampling. Purposeful sampling provides information-rich cases based on participants having specific characteristics (e.g., negotiating the junior-to-senior transition). To take part in the

intervention, participants must meet the following criteria; (a) were between the ages of 16 and 22 years, (b) currently compete in track-and-field, (c) perceive that they will make the transition into competition senior track-and-field, and (d) self-identified as having an interest in taking part in the intervention programme.

The intervention programme was promoted on social media (e.g., Twitter, Facebook) with the primary researchers contact details being made available to athletes who wanted to take part in the intervention. Athletes who were interested in taking part in the intervention were asked to express this via email. Athletes were expected to travel to take part in the intervention sessions (approximately once a week) and subsequently needed to be willing to travel to Sheffield regularly. There was no restriction on the geographical location of participants. It was, however, expected that athletes would be based within a reasonable distance to commit to travelling to the sessions in the programme. Also, there was no restriction based on athletic ability or achievements, athletes of all abilities were accepted to take part in the intervention, because, as suggested in study two of the current thesis, junior success is not a strong predictor of senior success. The programme, therefore, was open to all athletes who may be developing at different rates and benefit from the intervention. Participants were chosen on a first-come-first-serve basis, with participants who met the criteria being offered a place on the intervention programme.

The size of the group taking part in the intervention was considered an important aspect of the design of the intervention. An optimum group size of 10 to 15 athletes was identified as this can be managed by a single facilitator or presenter, allows for group discussion as well as individual attention during workshops (Petitpas & Champagne, 2000).

The intervention was conducted with male ( $n=2$ ) and female ( $n=11$ ) British track-and-field athletes aged between 16 and 21 ( $\bar{x}=18.6$ ;  $SD=1.61$ ). Athletes were competing at local

Table 8.1

*Intervention Programme Delivered to Athletes Negotiating the Junior-to-Senior Transition*

Workshop	Week	Duration of workshop (minutes)	Topic	Delivered by
1	1	120	Talk: A Successful Transition by Dame Jessica Ennis-Hill Talk: A Challenging Transition by Matthew Lambley	Karla Drew (facilitator) Dame Jessica Ennis-Hill Matthew Lambley
2	2	120	Personality: Understanding your Personality (Spotlight profile)	Karla Drew
3	3	60	Performance Lifestyle: Financial Advice/Planning	Phil Lumsden
4	3	60	Performance Lifestyle: Effective Time Management	Phil Lumsden
5	4	60	Sport Psychology: Coach-Athlete Relationship	Adam Bracey
6	4	60	Sport Psychology: Building Confidence for the transition	Adam Bracey
7	5	120	Physiotherapy: Looking after your Body during the Transition	Alison Rose
8	6	120	Mentoring: Learn from Experienced Senior Athletes	Karla Drew (facilitator) Mentors: Laura Weightman John Lane Joe Dunderdale Jess Taylor-Jemmett Matthew Lambley
9	7	120	Social Support: Supporting your Athlete through the Transition – Strategies for Coaches	Toni Minichiello
10	8	120	Nutrition: Fuelling your Body during the Junior-to-Senior Transition	Hannah Mayho
11	9	120	Social Support: Supporting your Athlete through the Transition – Strategies for Parents	Louise Capicotto
12	10	120	Talk: My Transition into Elite Swimming by Jay Lelliott	Jay Lelliott
13	11	60	Sport Psychology: Goal Setting for the Transition Period	Dr Robert Morris
14	11	60	Coping Strategies to Manage the Transition	Dr Robert Morris

(n=2), national (n=7), and international (n=4) level and competed across the following athletics disciplines; 100m, 800m, 1500m, 3000m, sprint hurdles, long jump, javelin, discus, and heptathlon. In addition, coaches (n=4) and parents (n=13) engaged with the intervention and took part in the respective workshops during the intervention.

#### **8.4.2 Measures**

The following measure were used to assess changes in athletes' adjustment to the junior-to-senior transition and perceptions of the intervention programme pre and post-transition.

##### **8.4.2.1 The Transition Monitoring Survey (TMS; Stambulova et al., 2012).**

Athletes' adjustment to the junior-to-senior transition were measured using the TMS (see appendix F). The TMS is designed to monitor the process longitudinally, and changes, as athletes' transition from junior-to-senior level in sport. The TMS was developed based upon three theoretical models: the analytic sports career model (Stambulova, 1994), the developmental model of transitions faced by athletes (Wylleman & Lavallee, 2004), and the athletic career transition model (Stambulova, 2003, 2009). The transition monitoring survey was chosen for this study because it has been used in previous studies and has demonstrated high internal consistency, good test-retest reliability, and satisfactory validity and reliability (Stambulova et al., 2012; Franck et al., 2018).

The TMS is made up of three parts. The first part of the survey is the introduction which comprises of 12 questions regarding athletes' personal and athletic background (e.g., age, gender, type of sport, level of competition, number of training hours, educational status, employment status). The second part of the TMS - current situation in sport and life - explores athletes' perceptions of different spheres of sport and life. The third part of the survey is the transition process which encompasses questions 15-21 of the TMS. The transition process includes questions related to perceived transition demands, coping

strategies, environmental support, environmental pressure, personal resources, current stress level, the current need for additional help/support, and perceived degree of adjustment to the senior level in sports.

**8.4.2.2 Social Validation.** Following the completion of the intervention programme, all athletes were asked to provide feedback regarding their perceptions of the intervention, which was achieved via social validation interviews with athletes. Social validation is a useful tool for evaluating athlete satisfaction with the delivery of an intervention programme or service whilst identifying areas for improvement (Anderson et al., 2002). Semi-structured interviews were used to assess social validity in the current study because they can be a source of rich information (Carter, 2010).

Interviews focused on exploring athletes' perceptions of the workshops they attended and their overall evaluation of the intervention programme. Semi-structured interviews were based upon Gresham and Lopez (1996) and Martin, Thompson, and Regehr (2004) social validity interviews, with questions being allocated to three areas - the significance of goals, social acceptability of procedures, and social importance of effects. Questions aimed to evaluate the significance of goals, including - what do participants and significant others think about the goals of the intervention, and why do you think the intervention is important? Social acceptability of procedures questions included - what do participants think about the procedures that were applied? What do you think about the intervention workshops? Finally, interviews explored the social importance of effects, with questions focused on whether participants were satisfied with the results of the intervention, including any unpredicted results. Focusing on the social importance of the effects, the semi-structured interview included questions such as - what do participants think the outcome is from taking part in the junior-to-senior intervention? Do you think the intervention was effective in supporting

athletes through the junior-to-senior transition? Why? Why not? Would you recommend the intervention to another athlete?

Finally, coaches and parents that took part in the intervention were asked to provide feedback via a semi-structured interview. Coaches (n=2) and parents (n=3) were interviewed to gain an understanding of their perceptions of the intervention as well as any further insight they could give regarding their athletes' experiences of the intervention.

#### **8.4.3 Intervention Procedure**

Upon receiving ethical approval, information about participation was sent to all participants with informed consent being sought before data collection (see Appendix G). Athletes were informed about what would be required of them (e.g., social validation interview, TMS). Athletes were able to tailor the intervention programme to meet their needs and were permitted to pick which intervention sessions they wanted to attend and felt would be beneficial. All athletes were expected to attend the first session of the intervention, which represents when baseline data were collected.

The intervention programme took place in weekly 2-hour sessions over 11 weeks. The intervention sessions were scheduled to fit alongside athletes' competition schedules and the academic calendar in the UK. The intervention sessions took place at a meeting room which was hired at the English Institute of Sport in Sheffield, as this was a location the athletes were familiar with.

In week 11, on completion of the final session of the intervention programme, all athletes were asked to complete the TMS and return it to the researcher before leaving. A follow-up social validation interview was conducted with participants between one and two weeks after the delivery of the intervention (see appendix H for interview schedule). All interviews took place at the English Institute of Sport (EIS) in Sheffield. All interviews lasted between 18-31 minutes (Mmins= 22.30; SD=3.82) and were transcribed verbatim.

On completion of the intervention all of the resources used during the workshops were uploaded to an online file-sharing platform and were made accessible to all participants of the intervention - resources included PowerPoint presentations, handouts, worksheet, and workbooks.

#### **8.4.4 Data Analysis**

A single-subject mixed methods design was employed, with data collected at baseline and at the conclusion of the intervention. The purpose of the data analysis was to two-fold - (1) to assess any changes in athletes perceived readiness to transition pre and post-intervention, and (2) evaluate athletes' perceptions of the effectiveness, content, and delivery of the intervention.

The purpose of data analysis was to assess the practicality of delivering an intervention and use survey data to detect any changes in readiness to transition, from pre-intervention to post-intervention. Specifically, the TMS was used to assess any changes in athletes' readiness to transition pre and post-intervention. Athlete data were inputted into Microsoft Excel, with mean scores being calculated across all subscales of the TMS for both individual participants and the group as a collective. In addition, mean scores were calculated for each item on the TMS, to establish which items were particularly salient to transitioning athletes (e.g., highest/lowest scoring).

Data were visually analysed to understand the effect of the intervention on athletes readiness to transition. This method of analysis was deemed appropriate to assess the practical significance of the intervention and is the most widely used analysis for single-case research design (Smith, [2012](#)). Visual analysis is effective in determining the impact of an intervention and can be of particular relevance in real-world applications, as presented in the current study (Pummell & Lavalley, 2019).

In order for analysis to be valid and reliable, the following strategy, informed by Hrycaiko and Martin (1996), was used to determine whether an experiment effect had occurred. According to Hrycaiko and Martin (1996), researchers can have a greater confidence in the effectiveness of an intervention when the following principles are used to guide visual analysis: a) baseline assessments are stable or in the opposite direction to that expected due to the intervention; b) any effect during intervention is replicated both within and across participants; c) few overlapping data points exist between the baseline and intervention assessments; d) that an effect occurs soon after introduction of the intervention; (e) a large effect is demonstrated; and (f) the results are consistent with relevant theory. All conditions were met in the current study.

To further assess the practical significance, social validation interviews with participants were conducted as it was deemed necessary to examine participants subjective experiences by capturing their individual responses following the intervention (Reeves, Nicholls, & McKenna, 2011). Interviews were transcribed verbatim and thematically analysed using Braun et al.'s (2019) six-step process (see chapter six for a more detailed description of data analysis procedure).

## **8.5 Results**

The results section is presented in two parts, with the data from the TMS (Stambulova et al., 2012) followed by the results from the social validation interviews.

### **8.5.1 The Transition Monitoring Survey (TMS; Stambulova et al., 2012)**

Descriptive statistics (i.e., means and difference scores) were calculated for each participant across all sections of the TMS. The results have been broken down into the three sections of the TMS; introduction, current situation in life and sport, and the transition process, with the group and individual means scores being presented in the respective sections.

**8.5.1.1 Introduction.** Descriptive statistical analysis of the TMS data from the introduction (questions 1-12) allowed us to depict participant information who were taking part in the intervention.

Athletes self-identified as competing at various standards (2=local; 7=national; 4=international), and typically spent 10-14 hours a week training and competing. A majority of athletes (61.5%) perceived they had not yet started the transition into senior competition, and all athletes, except one, were currently in education (e.g., university, college, or school). Finally, athletes were asked to identify how motivated they were to establish themselves on the senior level on a scale from 1 to 10 (1= not at all, 10= very). Athletes mean scores regarding their level of motivation to transition increased from 8.15 pre-intervention to 9.23 following completion of the intervention.

**8.5.1.2 Current Situation in Life and Sport.** The second part of the TMS explores athletes' current situation in sport and life and examines their perceptions of different spheres of sport and life in regard to their perceived importance and satisfaction.

Table 8.2 shows collective mean scores (pre, post-intervention) and the difference scores for current situation in life and sport section. The pre- and post-intervention scores indicated a positive change in mean across all four subsections. The importance of different spheres of life subscale indicated a positive change with a mean difference change of 0.22. Similarly, there was a positive change in relation to satisfaction with different spheres of life, with a mean difference change of 0.48. The importance of different aspects of sport subscale indicated a positive change with a mean difference change of 0.76. Finally, athletes' ratings for satisfaction with different aspects of sport demonstrated a positive change with a mean difference score change of 1.05.

Table 8.2

*Group Mean Scores (Pre, Post-Intervention) and Difference Scores for Current Situation in Life and Sport Section of the TMS*

Current situation in sport and life	Mean Pre- Intervention (SD)	Mean Post- Intervention (SD)	Pre-Post Difference
Importance of different spheres of life	7.93 (1.06)	8.15 (1.04)	0.22
Satisfaction with different spheres of life	7.46 (0.82)	7.94 (0.88)	0.48
Importance of different aspects of sport	7.97 (0.71)	8.73 (0.75)	0.76
Satisfaction with different aspects of sport	7.22 (0.41)	8.27 (0.79)	1.05

**8.5.1.3 The Transition Process.** The final part of the TMS - the transition process – explores eight subscales of the transition process including (a) transition demands, (b) coping strategies, (c) environmental support, (d) environmental pressure, (e) personal resources, (f) perceived stress, (g) need for additional help, and (h) adjustment to the senior level.

Table 8.3 shows individuals mean scores across the eight subscales of the transition process section in the TMS (questions 15-21) as well as the difference between pre and post intervention scores.

All thirteen athletes who took part in the intervention reported a decrease in perceived transition demands post-intervention compared to pre-intervention scores, indicating a change with a mean difference score ranging from -0.19 to -2.00.

In addition, all thirteen athletes reported an increase in their scores for coping strategies compared to their baseline. Athletes data indicated a positive change with a mean difference score ranging from 0.19 to 2.24 for post-intervention coping strategies. Following the intervention, athletes identified the most significant increase in coping strategies represented by the following statements "I try to be patient and to see my progress as a step-by-step process," "I have clear goals for sport," "I have clear goals in non-sport life," and "I try to learn from others", again, all of which were a focus of the current intervention. Setting clear goals, seeing progress as a step-by-step process, and learning from others (e.g., mentoring, role-models, etc.) were all critical messages within the intervention.

Eight athletes who took part in the intervention reported an increase in environmental support, whereas 5 athletes reported a decrease. For this subscale, athletes mean score difference ranged from -0.86 to 1.5. Ten athletes who took part in the intervention reported a decrease in environmental pressure post-intervention compared to their baseline scores. The environmental pressure subscale indicated a mean score difference ranging from -0.71 to 2.94. Eleven athletes who took part in the intervention reported an increase in their personal resources compared to their baseline scores. Athletes mean score difference ranged from -0.92 to 1.25 for the personal resources subscale. Nine athletes indicated a decrease in perceived stress post-intervention compared to their pre-intervention score, whereas 4 athletes reported an increase. Differences ranged from -2.34 to 2.17 for the perceived stress subscale. Ten athletes indicated a decrease in need for additional help post-intervention compared to their pre-intervention score, whereas 3 athletes reported an increase in need for additional help. Athletes mean score difference ranged from -3.17 to 2.84 for the perceived need for additional help subscale.

Finally, all thirteen athletes reported an increase in their perceived adjustment to the senior level following completion of the intervention. All athletes reported a positive increase ranging from 10% to 50% of perceived adjustment.

As shown in Table 8.4, the overall transition demands perceived by the group decreased from pre-intervention to post intervention, with a mean change decrease of -1.05. There was also a mean decrease across three other subscales of the TMS; environmental pressure, perceived stress and perceived need for additional help.

Following the intervention, four subscales showed a mean increase from pre to post-intervention; coping strategies, environmental support, personal resources and perceived adjustment to the senior level following the intervention programme.

Table 8.3

*Individual Athletes' Mean Scores (Pre, Post-Intervention) and Difference Scores for the Transition Process Section of the TMS*

	The Transition Process Subscales							
	Transition demands	Coping strategies	Environmental support	Environmental pressure	Personal resources	Perceived stress	Need for additional help	Adjustment to the senior level
<i>Athlete 1</i>								
Pre-intervention	8.59	6.76	8.5	6.5	6.67	6.9	7.5	0%
Post-Intervention	6.59	8.5	10	5	7.92	5.1	5.83	30%
Pre-Post difference	-2	1.74	1.5	-1.5	1.25	-1.8	-1.67	30%
<i>Athlete 2</i>								
Pre-intervention	6	5.71	5.43	4.14	6.75	6	7	40%
Post-Intervention	4.75	6.48	6.29	3.71	7.92	4	4.5	70%
Pre-Post difference	-1.25	0.77	0.86	-0.43	1.17	-2	-2.5	30%
<i>Athlete 3</i>								
Pre-intervention	8.06	7.52	7.14	5	7.17	3	3.5	70%
Post-Intervention	7.35	8.19	7.43	4.17	7.92	2	3.33	80%
Pre-Post difference	-0.71	0.67	0.29	-0.83	0.75	-1	-0.17	10%
<i>Athlete 4</i>								
Pre-intervention	5.25	7	9.4	3.8	7.09	3.33	6.33	10%
Post-Intervention	5.06	7.33	9.2	3.67	7.5	5.17	4.83	50%
Pre-Post difference	-0.19	0.33	-0.2	-0.13	0.41	1.84	-1.5	40%
<i>Athlete 5</i>								
Pre-intervention	8.44	7.38	7.71	7.17	7.08	4.83	3.83	0%
Post-Intervention	7.75	7.95	7.43	7.67	7.25	6.4	7	20%
Pre-Post difference	-0.69	0.57	-0.28	0.5	0.17	1.57	3.17	20%
<i>Athlete 6</i>								
Pre-intervention	3.24	6.67	8.5	5.5	8.27	2	3	10%
Post-Intervention	2.53	7.95	8.33	4.6	8.55	1.8	2.2	60%

Pre-Post difference	-0.71	1.28	-0.17	-0.9	0.28	-0.2	-0.8	50%
<i>Athlete 7</i>								
Pre-intervention	7.41	5.33	5.71	6.14	5.92	5.33	5.67	10%
Post-Intervention	6.24	6.24	6.14	6.14	6.75	3.17	2.83	30%
Pre-Post difference	-1.17	0.91	0.43	0	0.83	-2.16	-2.84	20%
<i>Athlete 8</i>								
Pre-intervention	5.76	4.52	5	5.86	5.96	7	5.67	10%
Post-Intervention	4.41	5.81	5.57	4.86	6.58	5	3.83	30%
Pre-Post difference	-1.35	1.29	0.57	-1	0.62	-2	-1.84	20%
<i>Athlete 9</i>								
Pre-intervention	5.94	5.9	6.43	5	5.5	5.67	5.17	40%
Post-Intervention	4.65	7.29	6.57	4.29	6.67	3.33	2.33	60%
Pre-Post difference	-1.29	1.39	0.14	-0.71	1.17	-2.34	-2.84	20%
<i>Athlete 10</i>								
Pre-intervention	6	5.52	6.14	4.43	6.25	4.8	2.8	20%
Post-Intervention	5.63	6.43	6	5.14	6.27	5.6	4.4	40%
Pre-Post difference	-0.37	0.91	-0.14	0.71	0.02	0.8	1.6	20%
<i>Athlete 11</i>								
Pre-intervention	8	5.76	7.57	3.67	5.67	7.83	8.17	0%
Post-Intervention	6.71	8	7.71	3	6.33	6.33	6.17	50%
Pre-Post difference	-1.29	2.24	0.14	-0.67	0.66	-1.5	-2	50%
<i>Athlete 12</i>								
Pre-intervention	8.59	7.38	8	7.17	7.5	4.5	4	10%
Post-Intervention	6.94	7.9	7.14	5.43	7.42	6.67	6.83	40%
Pre-Post difference	-1.65	0.52	-0.86	-1.74	-0.08	2.17	2.83	30%
<i>Athlete 13</i>								
Pre-intervention	7.76	7.48	5	5.8	8	6.17	7.17	30%
Post-Intervention	6.82	7.67	5.8	2.86	7.08	5.17	5.5	60%
Pre-Post difference	-0.94	0.19	0.8	-2.94	-0.92	-1	-1.67	30%

Table 8.4  
*Mean Scores (Pre, Post-Intervention) and Difference Scores for the Transition Process Section of the TMS*

Transition Process variables	Mean Pre-Intervention (SD)	Mean Post-intervention (SD)	Pre-Post Difference
Transition demands	6.86 (0.68)	5.81 (1.11)	-1.05
Coping strategies	6.36 (0.92)	7.36 (0.87)	1.00
Environmental support	6.66 (2.43)	6.88 (2.52)	0.22
Environmental pressure	5.27 (1.74)	4.59 (1.52)	-0.68
Personal resources	6.74 (1.15)	7.22 (1.19)	0.48
Perceived stress	5.19 (1.19)	4.59 (1.11)	-0.6
Perceived need for additional help	5.43 (0.74)	4.58 (0.8)	-0.85
Adjustment to the senior level	19%	48%	29%

### 8.5.2 Social Validation

In research, social validation has been used to determine satisfaction with an intervention and has been employed in single-case studies within research and applied practice (Page & Thelwell, 2012). In this study, social validation interviews were used to complement the quantitative data provided by athletes whilst adding context to their responses. The interviews were used to understand athletes' satisfaction with the delivery of the intervention programme as well as identifying areas for improvement.

Following the intervention programme, five themes emerged from the raw data, with athletes reporting: (1) a greater understanding of the transition process, (2) increase in readiness to transition, (3) the role of social support, (4) an increase in sport-related knowledge and (5) improvements to the intervention. Raw data quotes are provided throughout the results to enhance transparency whilst adding context for the reader (Smith & Caddick, 2012).

**8.5.2.1 Greater Understanding of the Transition Process.** Athletes highlighted having a greater understanding of the transition process following completion of the intervention. Athletes demonstrated an understanding that the transition into senior sport was a long-term process and may take a number of years to negotiate. This was supported in the results from the TMS, specifically coping strategies. For the statement, "I try to be patient

and to see my progress as step-by-step process”, athletes reported the biggest change post intervention compared to all other coping subscales. Athletes reported an average score pre-intervention of 5.31 (0= not at all, 10=very much), whereas, intervention athletes indicated a score of 8.23 post-intervention. These results suggest athletes were more aware that their progress through transition was a long-term process following the intervention. One athlete reflected -

I just got to know a bit more about the actual sport from other people’s point of view who have already made it to the seniors and see how different people progress is quite interesting. If I’m not the best in the world right now that is okay because its more long-term than that, just keep working.

Another athlete reflected on the workshop from Toni Minichiello where he discussed athlete development from a long-term perspective -

I think the whole thing about him saying that its long term, like that put it into perspective because I am like someone that is like *“Oh I am having the worst session ever, this is all going really downhill”* but knowing that you have years to come and you plan for the future rather than just that one session.

A number of athletes perceived their understanding of the transition process increased when hearing from Matthew Lambley and Jessica Ennis-Hill about their unique transition experiences -

I liked hearing about their experiences so things that you wouldn’t know without them telling you, like one was successful and then one was not. And Matt would say that their transition kind of went on the same path and then just right at the end they just differed. So yeah I thought that was quite good to understand how it’s a different process for everyone, you don’t ever get to hear that stuff.

Similarly, another athlete believed hearing from an athlete in another sport (swimming), helped them to understand the junior-to-senior transition process and how this occurs across all sports as well as how it influences athletes differently -

He (Jay Lelliott) has been at the top of his sport and he kind of went down and now he is getting back up, and I liked seeing why he went down because he tried to change things that were working, so try to avoid what he did trying and changing too many things, and also maybe burning out and working too hard. I liked the fact that he was from a different sport as well he wasn't talking about athletics, that transition happens in swimming and everything else really.

Results from the TMS also highlight that athletes reported an increase in learning from others post-intervention. Athletes baseline scores for learning from other as a coping strategy for the transition increased from 7.54 (0= not at all, 10=very much), to 8.54 post-intervention, which could reflect the learning from others (e.g., mentors) that took place during the intervention.

In addition to developing a greater understanding from engaging with senior athletes, athletes also perceived to achieve a greater understanding through practical knowledge that was not necessarily considered prior to the transition. One example comes from an athlete who stated -

The financial advice is good because I have not thought about tips like, I have not really thought about money. And when I go to University and as I get older it is going to become more important. It's like I am going to physiotherapy today, but I am going to have to budget physio in when I get older, I guess that's part of it, part of the transition, managing those different things.

**8.5.2.2 Readiness to transition.** Despite some athletes being a number of years away

from transitioning into senior sport, athletes perceived that the intervention had increased their readiness to transition. The results are supported by data provided in the TMS, where athletes reported, on average, an increase of 29% regarding their adjustment to the senior level following the three-month intervention. Athletes' increase in readiness to transition appeared to have come from their increased understanding of the transition process, making them feel more prepared. One athlete stated -

I definitely feel more ready for it. I wouldn't have even thought about some of things like going to university and having to balance time and money and the nutrition, I wouldn't have thought about it. So, it's even just made me aware of it.

One athlete described initially feeling worried about the transition but following the intervention feels more prepared stating, "first of all I was worried knowing the percentage of people from junior-to-senior that don't get a PB when they are a senior, so this programme has made me a lot more prepared than I actually was".

Despite athletes being a number of years away from competing in the senior age group, athletes felt more prepared to make the transition following the intervention. One athlete, who reported a 40% increase in their perceived adjustment to the senior level reflected -

Yes, most definitely, I feel like now I know what to expect, like knowing what to expect in the future will give me an insight on how to prepare myself. It was a really useful, like to do over the summer, and also along with making better connections to so many different contacts like physios, sport psychologist and everything I think it will benefit me in years to come.

Finally, one athlete described feeling more ready to make the transition after hearing from senior athletes during the mentoring session who came from a similar background and had successfully made the transition.

Yeah I do feel more ready to make the transition after the sessions. In the Sheffield area you don't see that many people progress, it seems like it is always from London and stuff like that, so it is just good to see people who actually made it here and that it is possible.

**8.5.2.3 The Role of Social Support.** Athletes identified that the intervention had developed their understanding of the importance of developing a support network for the transition and beyond. Athletes perceived the intervention provided them with an opportunity to engage in discussions with significant others (e.g., parents, coaches, mentors).

The results from the social validation interviews support the quantitative data from the TMS. The TMS showed a small overall increase in perceived environmental support (0.22) post intervention compared to baseline scores. As highlighted, the TMS assesses environmental support across five sources of support including; coach's, family, teammates, club/federation, and media. A closer look at the data shows athletes reported much larger increase in support from their coach (1.08) and parents (0.54) compared to the other three categories. This is consistent with the insights gained from the social validation interviews, with athletes feeling closer to parents/coaches following the intervention as they gained a better understanding of the transition process. One athlete stated - "I just think you don't really realise how important people are to you, how much you need their support really. The session with my mum and my coach made me more aware that I need them". During session nine of the intervention, where parents were asked to attend, one athlete described that they gained insight into how their parents feel during competitions, which subsequently encouraged a conversation about what athletes want from their parents around competitions and vice versa -

It was quite good because you didn't realise how stressed your parents actually get, you just think they are annoying. You need to see it all, like maybe it is a bit stressful

for them as well as you. Because my mum is always stressed talking about it, she doesn't know how to talk to me. Yeah I just said you always talk to me at competitions and it annoys me and she was like "*Yeah but I have got to see if you are okay, if you are in a good mental mindset*" but now she understands and then she just leaves me at that from now on, so now I understand what she's thinking and she knows where I'm coming from and we had never spoken about that before.

Another athlete on the programme made a similar reflection, stating -

My mum found it so useful because it is kind of nice to just sit down and talk together and just listen to everything we have got to say, and it helps her to understand about the whole process and like all the other parents felt the same.

One athlete felt like a weight had been lifted off her shoulders when she was able to discuss with her father about her commitment to sport and plans for the transition -

It was getting a bit of a weight off my shoulders because he is always nudging me, he is like "*what you doing for this what you doing for that*" which is a bit of a nightmare, but I just got to sit down and just talk about it. And then he could just ask his questions that he wanted to know.

Similar feedback was received following the coaches session (session 7). Athletes felt this session gave them the opportunity to have an honest conversation about their development away from the training environment- "We don't usually speak about stuff like that, it's usually just about training but it was nice to hear what he is thinking about that transition and that he thinks about my future". Another athlete described how the session lead to a conversation with their coach, stating -

Afterwards me and my coach agreed and felt like we're on the right direction for improvement. Yeah my coach enjoyed the session. He thought it was interesting to

hear what Toni had to say and yeah he agreed with it and it led us on to have more conversations between us and my training.

Finally, as well as providing an opportunity for athletes to converse with parents and coaches, the intervention provided athletes with the opportunity to interact with other athletes taking part in the programme who were going through similar transition experiences and challenges. One athlete described that they felt it was beneficial to engage in group discussion during the sessions - “I liked the fact that we did it in groups because not everyone copes the same so it’s just nice to hear about them and how they are finding it”. Another athlete reflected - “being a part of that group was good. I got to make friends with people who are the same as you and want the same things as you”.

**8.5.2.4 Increase in Sport-related Knowledge.** One key theme that emerged from the social validation interviews was an increase in sport-related knowledge. All athletes perceived to develop a greater understanding of general principles within their sport, which they were educated on during the intervention sessions (e.g., nutrition, physiotherapy, lifestyle, personality). One athlete reflected on what they had learnt during the physiotherapy session -

I thought it was really interesting, half of us didn’t even know that stuff about our body, certain parts of your body influence other parts of your body so you have got to take care of your whole body not just certain bits, especially if you want to make it as an athlete.

Similarly, another athlete on the programme reflect on what they had learnt from attending the physiotherapy session -

I have been trying to do those exercises daily, and it has been helping a lot. That’s a knowledge that I didn’t have before and actually it’s a really important one. Your

body is yours and you need to look after it and that session really helped me to understand how to do that.

When reflecting on the personality profiling session, one athlete described developing a greater understanding of their personality and how they can use this knowledge to manage their nerves prior to competition.

I liked that session because I knew it about myself, I know I am a person that needs order, but there were also things you don't realise, it is like not conscious. And I showed it to my mum and everyone and they are like "*that is definitely you*", it's so accurate. The reason I get so nervous is that I over think everything but then knowing that, I have definitely used it to prepare as much as I can so there is no reason to be nervous because I have done everything I can do. And it's about the whole flexing as well though, sometimes you might need to move out of your comfort zone and its getting comfortable with that...that was quite eye-opening.

Overall athletes perceived the intervention to be beneficial to their development - "I took something from all of the sessions, and I learnt something because I made notes on all of them and found them all helpful, yeah. It was so good to be a part of". In addition, athletes expressed that they liked having workbooks as a resource that they were able to use during and after the intervention programme. One athlete stated -

The workbooks were good as well there was a lot of information in them, so even the sessions I didn't go to I still read about the other stuff and that was still helpful, it was nice to have them to take away.

**8.5.2.5 Improvements to the Intervention.** Athlete were also asked to reflect on the intervention specifically regarding areas for improvement or additional content. A number of athletes discussed the scheduling of the intervention workshops as an area for improvement

and felt it would have been better if there were multiple workshops on one day, rather than one two-hour workshop a week. This was reflected by one athlete who stated -

I wanted to come to all the sessions but some of them clashed with other things or I couldn't get to Sheffield... yeah I would have preferred to have it [the intervention] over a weekend or a week in the summer holidays or something, just then I wouldn't have had to miss a session.

Another athlete who was travelling from Manchester described that their parents were unable to commit to traveling to Sheffield every week - "my mum couldn't bring me every week after work because my brother had football as well... but if you run it again in Manchester or do a weekend course I'd like to come to that".

Finally, one athlete recommended another potential improvement to the intervention programme would be to have an event-specific workshop, where athletes were able to focus on the nuances of their specific athletic discipline and what would be required of them during the transition. This athlete stated - "I don't know really, possibly make the sessions more event specific, as there was only one other athlete that was in my discipline, it would have been good to have an event specific session, so just distance runners".

**8.5.2.6 Coach and Parent Reflections.** Coaches (n=2) and parents (n=3) also provided feedback on the intervention via social validation interviews. Their feedback was regarding the sessions they had attended and any further feedback they wanted to provide regarding the intervention delivery and content. All coaches and parents described that their child/athlete perceived the intervention to be a positive learning experience. One coach explained that his athlete was happy to be a part of the intervention alongside like-minded athletes -

I think it was probably also good because she felt part of something, and was happy to just be involved, there was a lot of interaction with fellow athletes of her age, but also

senior athletes who she could talk to and get advice from, and it was good for her to see what she needs to do to get to that level.

Similarly, one parent stated their child was able to take something away from all of the sessions they attended, saying -

All the sessions he went to he took something from. He would always tell us about what he had done in the session on the car journey home. He was actually really enthusiastic about it, which we don't often get to see.

Both coaches and parents provided positive feedback regarding the sessions they attended. Coaches and parents were grateful for the opportunity to engage in conversation with their child/athlete regarding their transition and general sport development. In addition, parents and coaches appreciated being involved in sessions with other parents and coaches who were in similar situations. One coach reflected on sharing similar transition experiences with another coach on the intervention, stating -

There were a couple of examples. One was hearing another coach go through seemingly the same problem I have just gone through with an athlete and thinking...

*"Oh right I understand that"* and *"right I have got to say something because this is some of the same stuff I went through and it might help"*, so getting the opportunity to interact with other coaches and take some stuff away from that was useful..

One coach reflected on the programme being athlete-centred and perceived that coaches would benefit from the development and implementation of a similar intervention in future. They reflected -

This programme was for athletes and whilst there was coaching involvement and parental involvement, it was for athletes and it should be athlete-centred. As a coach, I would have loved to have attended everything and been able to take in all the material or ask questions, so I came away with just as much knowledge as they did.

Because you tend to be a jack of all trades, so you know little bits of everything, but not enough of something when someone asks you a specific question. So, if there was something available like that, I'd have been interested in it. But to pander more towards the coach I think defeats the object. It was athlete-centred and that's where it should lie, I think that was its strength.

Finally, one coached surmised that they perceived the sport would benefit from the development and delivery of similar interventions to support athletes through the junior-to-senior transition -

I really thought it was a good comprehensive programme and I think that more should be done to put together programmes like this across the UK, but unfortunately it isn't being done, and only a select few athletes are being helped, which as a coach is frustrating but programmes like this is great, that really helped make the athletes feel important and that they actually matter to the sport

## **8.6 Discussion**

The current study aimed to identify an approach to facilitate athletes' transition from junior-to-senior sport. The purpose of the present study was to: (a) develop an intervention program, based upon previous findings in the thesis, to prepare and facilitate athletes for the junior-to-senior transition, and (b) to implement and evaluate the effectiveness and perceptions of the intervention.

Specifically, the intervention strategy was focused on: (a) providing athletes with appropriate education in order for them to manage sport and non-sport demands whilst negotiating the transition, (b) educate athletes on the importance of social support whilst providing athletes with opportunity to develop their support network (e.g., mentoring), and (c) support the holistic development of athletes in both their sporting and non-sporting lives.

Previous research has identified there to be a lack of research assessing the effectiveness of interventions designed to assist athletes in the junior-to-senior transition (Morris, 2013). To date, to the knowledge of the author, only one study has developed an intervention to aid preparation for the junior-to-senior transition, which focused explicitly on UK tennis (see Pummell & Lavalley, 2019). The current study, therefore, is the first which implements, delivers, and evaluates an intervention to support British track-and-field athletes through the junior-to-senior transition.

The purpose of the intervention was to prepare athletes for the upcoming transition by increasing their understanding of relevant knowledge, skills, and support for the transition. Quantitative and social validation data imply that, amongst other factors, athletes felt more motivated to make the transition, better adjusted to compete as a senior athlete, and had developed a number of coping strategies that can facilitate their transition (e.g., seeing progress as long-term) post-intervention. Beyond this, the results suggest that the intervention had a positive influence on athletes perceptions of the transition, their motivation to successfully make the step up into senior sport and had developed skills which could be used in the future (e.g., goal setting).

First, all athletes who took part in the intervention reported an increase in motivation to make the transition following the intervention (except for two athletes who both rated themselves the maximum 10 out of 10 pre and post-intervention). Motivation has been found to be an internal resource that can assist with the coping process during the junior-to-senior transition (Stambulova, 2003). As recognised, athletes are required to cope with a number of barriers and demands associated with the transition. Athletes who are able to draw on internal and external resources, such as motivation, are more likely to be able to cope with the demands and successfully make the step up to senior sport (Pummell et al., 2008; Stambulova, 2003). By increasing athletes motivation, through the delivery of the

intervention, young athletes may be more able to handle the pressure and potential setbacks associated with the transition and may be more motivated to persist on making the step up into senior sport despite the number of challenges to contend with (Morris, 2013).

Athletes that took part in the intervention also suggested that the importance of their sport had increased post intervention, which could be related to their increase in motivation to successfully make the transition. The intervention did not necessarily aim to increase the importance of sport or any aspects of sport, but rather create and encourage a positive balance between the different spheres of athletes' lives. Athletes need to maintain a balanced level of identity between the different life-roles (e.g., sport, work, education, relationships) to prevent or reduce identity foreclosure (Hollings, 2014; Jones et al., 2014). A strong sporting identity has been reported as a crucial factor in making a successful transition (i.e. those who have a high athletic identity are more likely to make a successful transition); however, athletic identity can become a barrier and lead to negative consequences in the future, especially when transitioning out of competitive sport (Franck et al., 2018; Pearson & Petitpas, 1990; Stambulova, 2003).

Wylleman et al. (1999) suggested that it is during the junior-to-senior transition that athletes start to develop an athletic identity. Athletes identity is crucial and can both positively or negatively influence by their degree of commitment to their sport and the development of life skills (Morris, 2013). The development of athletes identity may have an outcome on the junior-to-senior transition. For example, athletes with low athletic identity may lack dedication to their sport and then may drop out. Conversely, athletes with a high athletic identity, may have difficulties coping with the pressure and expectation of their sport, may overcommit and experience burnout or injury. Therefore, the aim of the intervention was not to promote or encourage athletes' athletic identity, but rather create a balance between the different life spheres. Following the intervention, athletes TMS scores suggested a better

balance between the five life spheres (e.g., sport, studies, family, friends, girl/boyfriend; excluding work because only three athletes worked part-time) compared to pre-intervention scores. Athletes rated sport, family, and friends as the most important and satisfying spheres of their lives. The social validation data also suggested athletes understood the importance of developing multiple identities rather than exclusively focusing on their athletic identity which is something they gained from the mentorship programme and guest speakers.

In addition, following the intervention, data suggested changes in the demands associated with the transition. Athletes who took part in the intervention reported a reduction in scores across all demands in the TMS, except for two which were physical conditioning and tactical skills, which were not a particular focus of the intervention. Athletes identified the most significant change in perceived transition demands for coach relationship/communication, sport peers' relationships/communication, combining sport with school/work, mental skills, and reported having a greater understanding of the transition process and the associated challenges.

First, athletes data showed a decrease in scores for perceived demands for coach relationship/ communication. This is also reiterated, as athletes identified the most significant increase in support from their coach following the intervention. One explanation for these changes could be because athletes felt they were able to open up to their coaches during the workshops they attended and were able to have frank and honest discussions about their concerns around the transition.

Researchers suggest that athletes who are encouraged and supported by their coach and build a positive coach-athlete relationship are more like to experience a smoother transition (Fuller, 2014; Lotysz & Short, 2004). Although many athletes and coaches may not need guidance in developing effective relationships, it is also possible that interventions, like the current one, can be used to help create a positive and effective coach-athlete relationships

(see Jowett & Poczwardowski, 2007) From the social validation interviews, athletes suggested that these interactions with the coach helped to foster a supportive relationship away from the sporting environment, which many athletes and coaches reflected was uncommon.

Moreover, the interaction and engagement with fellow athletes on the intervention programme may explain the positive changes in sport peer relationships (e.g., decrease in perceived demands sport peers relationship, increase in sport peer relationships and communication). Many athletes referred to the positive relationships that had been developed through the intervention and being able to share thoughts and concerns to someone who is negotiating similar challenges. Windsor, Barker, and McCarthy (2011) highlight the importance of personal disclosure and mutual sharing amongst successful teams. Despite track-and-field being an individual sport, the intervention looked to develop a support network for athletes involved in the intervention so that they were a cohesive team in supporting and learning from one another through the transition. The purpose of a personal disclosure mutual-sharing approach (PDMS) was to encourage junior athletes to reflect and listen to stories and experiences from the role-models, senior athletes, coaches and other presenters on the intervention. A PDMS approach can aid the development of effective team relationships through publicly disclosing personal stories and experiences within the group (e.g., concerns around the transition process) which can facilitate shared perceptions, meanings and understanding (Ostroff, Kinicki, & Tamkins, 2003). Regarding the current study, athletes who took part in the intervention would often engage in personal disclosure and mutual sharing amongst the group. This disclosure can help athletes to develop a greater knowledge of the transition by understanding others perceptions and may also explain why all athletes indicated an increase in their perceived level of social support post-intervention. Interventions that assist athletes in building a support network can be useful in helping

athletes cope with the challenges associated with the transition. As Danish, Petitpas, and Hale (1992) suggested, the use of support groups, formed of individuals, experiencing similar events can help alleviate stress and concerns around the event, foster cohesion amongst the group, and develop strategies and procedures to deal with stressful situations.

One area of support athletes perceived to be lacking in was from their club and/or federation. Athletes identified a lack of support from their club/federation, which supports previous findings in the thesis. Research has suggested that a lack of support can be an external barrier to the transition (Pummell et al., 2008). Organisations that provide appropriate social provision and practical support related to the junior-to-senior transition (e.g., education of parents and athletes on factors influencing the transition) are likely to be beneficial to athletes in terms of their development and transition outcome (Morris, 2013). On the contrary, a lack of organisational support and a dysfunctional sport culture can result in athletes being less inclined to seek help and support from an organisation when they need it (Schinke, Stambulova, Si, & Moore, 2017), which can lead to adverse outcomes of the transition (e.g., crisis transition, poor mental health and wellbeing). As recognised through the intervention evaluation, but particularly in previous studies in the thesis, a number of athletes perceive that they receive adequate organisational support which is negatively influencing their transition experience.

Athletes data also suggested an increase in athletes TMS scores for the use of coping strategies associated with the junior-to-senior transition. The biggest change pre and post intervention related to learning about the transition process from other athletes (e.g., I try to learn from others). Throughout the intervention, role-models and senior mentors gave a detailed insight into the transition process and the competitive senior environment in an attempt to increase athlete' self-efficacy and a sense of readiness for the junior-to-senior transition. More specifically, as postulated by Bandura (1997), through the use of

observational learning, athletes may gain greater confidence in making and managing the transition by developing their knowledge and coping skills (Brown et al., 2015; Pummell & Lavallee, 2019). For example, observational learning may have facilitated junior athletes understanding of the transition process (e.g., what are the challenge associated with the transition?, how did the mentors negotiate the transition?). This increase in knowledge gained through the mentorship may help to increase junior athletes efficacy in their ability to manage the process.

In summary, the results of the current study indicate that the implementation of an intervention programme may be useful in facilitating the transition from junior-to-senior sport. Consistent with previous research, the study suggests that by providing athletes with resources such as education, knowledge, social support, and coping strategies, this may help increase athletes' perceived adjustment, motivation and readiness to negotiate the junior-to-senior transition. Although it is beyond the scope of the current study to examine the long-term effects of the intervention on the athletes' transition, it is believed that the current intervention has played a role in educating and equipping athletes with a number of key resources which may help to manage the various challenges commonly associated with the junior-to-senior transition.

### **8.6.1 Applied Implications**

As the present study delivered an intervention in a real-world context, the applied implications should be discussed. First, quantitative results from the TMS and social validation interviews indicated a positive influence for all athletes taking part in the intervention. Specifically, athletes who took part in the intervention experienced an increase in readiness to adjust to sport at senior level and were more motivated to make the transition. Sports clubs and federations can often be held accountable for poor transition rates and athlete attrition, it is suggested that it may be beneficial for such governing bodies to explore

how they can best support their athletes through the delivery of an intervention, similar to the one implemented in the current study. Specifically, the results suggest that an intervention with a focus on the holistic development of the person, not just the athlete, through education and the provision of social support (e.g., mentoring), can provide athletes with appropriate education, skills and coping strategies to manage the challenges associated with the junior-to-senior transition.

Second, a number of practical considerations should be taken into account by researchers looking to design and deliver an intervention to support transitioning athletes. For the current intervention, it was decided to deliver a series of workshops over several weeks to help participants digest the information from each session. However, based on the feedback received, athletes stated they would have preferred it if there were multiple workshops on a single day. Some athletes had to miss one or more of the workshops due to other commitments (e.g., other sport, after-school clubs). Upon reflection, and based upon the feedback, future delivery of the current intervention would perhaps be more beneficial delivered over fewer but longer days. For instance, the current intervention may have been better if delivered over two weekends, or a three-day immersion program.

One final consideration for future researchers, is in regard to the expenditures when designing and implementing a research-informed intervention. To deliver the intervention there was significant investment in time. Moreover, the intervention required several specialists (e.g., nutritionist, physiotherapist) to deliver on the programme, which can also be quite costly. Therefore, in the applied context, a programme similar to the current intervention might be difficult to replicate within a small sports team/club. This may mean that support and assistance from national governing bodies and larger sport organisations may be needed to deliver such a programme.

### **8.6.2 Limitations and Recommendations Future Research**

The current study offers an important contribution to the sport psychology literature, as it is the first to design, implement, and evaluate the effectiveness of an intervention to support British track-and-field athletes approaching the junior-to-senior transition. Nevertheless, as to be expected, there are limitations that must be considered and suggestions for future research.

First, due to the nature of the study, it is not possible to assess the residual effects of the intervention. Regardless of the athletes identifying many positive implications from taking part in the intervention (e.g., increased adjustment to the senior level, increase self-confidence) it is not possible to conclude that these factors would necessarily lead to a successful transition into senior sport. Future research could look to track those athletes who take part in interventions to better understand the influence the intervention has on the transition outcome, and whether the aforementioned benefits of the intervention are sustained through the transition. Future research should look to determine the effects of such interventions once athletes reach the transition into senior sport.

Finally, the sample of the current study included athletes who compete in track-and-field in the UK. Although we perceive this to be a strength of the research, the sample limits the generalisability of findings to other contexts, as the demands associated with the transition may vary within different sports (Stambulova et al., 2009). Thus, future research should look to continue to deliver empirically informed interventions across a wide range of sporting contexts to develop knowledge and better understand how intervention can be applied and adapted for various athletes, sports, and cultures.

## **8.7 Concluding Remarks**

The findings from this study provide insight into the design and implementation of a career transition intervention, specifically for the junior-to-senior transition in track-and-field

athletics. The current intervention looked to support athletes to successfully negotiate future transitions through education and the provision of social support. The qualitative and quantitative results suggested - post intervention - athletes felt more motivated to make the transition, better adjusted to compete as a senior athlete, and had developed a number of coping strategies that can facilitate their transition. It is proposed that, due to the positive findings from the current study, there is a need for researchers, practitioners, and governing bodies to implement and evaluate interventions to support athletes through the junior-to-senior transition. Research supporting the use of interventions may help practitioners to implement successful strategies which assist athletes through the junior-to-senior transition, specifically focusing on assisting athletes through personal development, while reducing attrition rates and talent loss, and supporting athlete to achieve a good mental health.

## **Chapter IX - General Discussion**

## **9.1 Introduction**

This chapter concludes the thesis by outlining and discussing the outcomes of the current research programme. Specifically, this chapter comprises of (a) an overview of the thesis and key findings from each study; (b) a general discussion of the research findings; (c) applied implications; (d) strengths and limitations of the thesis; (e) suggestions for the direction of future research; and (f) final conclusions of the thesis.

## **9.2 Overview of Thesis and Results**

The overall purpose of this thesis was to explore the junior-to-senior transition within a sport-specific context in the UK, culminating in the design, implementation and evaluation of an intervention to support athletes' approaching the transition. This programme of research had four specific aims. The first was to provide a review and synthesis of the current research on the junior-to-senior transition in sport. Due to the increase in literature on the junior-to-senior transition in sport, it was perceived that consolidating this knowledge via a synthesis will add to the body of knowledge to inform and improve research, education, and practice. The second aim of the thesis was to determine the extent to which elite junior British athletes successfully made the transition into senior sport. Despite significant financial investment in British track-and-field in proceeding years, there are no apparent increases in development rates of athletes, with around two-thirds of athletes failing to make the necessary improvement to transition into the senior ranks successfully. These findings provided a rationale for the third aim of the thesis, which was to examine athletes' perceptions and experiences of the junior-to-senior transition and identify factors that were perceived to facilitate or debilitate the transition outcome. Previous literature has explored athletes' perspective of the factors associated with the junior-to-senior transition (e.g., Morris, 2013; Pummell, 2008; Stambulova et al., 2017); however, there has been no research that has focused exclusively on the perceptions of British track-and-field athletes. Finally, the current

research aimed to design, implement, and evaluate the effectiveness of an intervention designed to assist athletes through the junior-to-senior transition.

### **9.2.1 Study 1**

The purpose of the initial study was to perform a meta-study analysis of qualitative research on the junior-to-senior transition literature. Specifically, the study looked to (a) provide an overview and critique of methodological and theoretical decisions which underpin current junior-to-senior transition literature; (b) systematically review, evaluate, and analyse literature on the junior-to-senior transition in sport with particular focus on factors that are perceived to influence the transition; and (c) provide a synthesis of findings regarding the factors that influence the junior-to-senior transition in sport. A total of 27 studies were included in this meta-study. Meta-method, meta-theory, meta-data analysis, and meta-synthesis analyses were conducted on data, as recommended by Paterson et al. (2001).

Meta-method data captured a total of 261 participants' perceptions of the junior-to-senior transition across various team and individual sports. Data highlighted that the primary method used to research the junior-to-senior transition is individual cross-sectional interviews. Moreover, meta-theory analysis found two theories (Wylleman & Lavallee, 2004 & Stambulova, 2003) were the dominating theories used to underpin data collection. Findings also identified gaps in current knowledge and recommendations for future research directions (e.g., longitudinal designs). Data-analysis identified 59 factors that were perceived to influence the junior-to-senior transition. These 59 factors fell into one of 13 themes; perceptions of the transition, psychological factors, personal development factors, performance development factors, social support, motivation, sources of stress, physical factors, organisational culture and values, youth culture and values, coping strategies, mentoring/modelling, and educational programs. These 13 themes were then categorised into

4 overarching themes: individual factors, external factors, cultural factors, and intervention strategies.

Following the meta-data analysis, a model of junior-to-senior transition, called the individual, external, cultural model of the junior-to-senior transition, synthesises current knowledge and is proposed as a way to explain the transition process. The model provides a framework which can be used by practitioners to understand athletes' transition experiences, including the challenges they may experience and suggestions for intervention.

### **9.2.2 Study 2**

After establishing a large number of factors that can influence the transition from junior-to-senior sport, the thesis focused on the process from a sport-specific context of British track-and-field athletics. The purpose of this study was to determine if junior success was a prerequisite for senior success. Through quantitative analysis, athletes' performance data was retrospectively tracked from participation in the IAAF Athletics World Junior Championships through to senior representation, or otherwise. A total of 317 athletes represented Great Britain at one or more of the eight editions of the IAAF World Junior Championships held from 1998 to 2012, with performance data being tracked until 14th August 2017. This study showed that 67% of athletes who competed at the World Junior Championships for Great Britain did not go on to represent their country at a senior major championship in an individual event. Additionally, it was identified that 63% of British athletes who competed at a World Junior Championships failed to go on to improve their personal best as a senior athlete (i.e. achieved their peak performance before reaching the senior age-group). The results of the analysis highlight the challenges associated with predicting future success as a senior athlete based on junior performance. The overall findings of the current study highlighted that the progression rates of athletes in the current context have remained remarkably consistent over the past few Olympic cycles and despite

significant financial investment in the sport in proceeding years, there are no apparent increases in development rates of athletes.

### 9.2.3 Study 3

Building on the knowledge generated from the findings of study one and two of the thesis, study 3 explored athletes' perceptions of the junior-to-senior transition. Specifically, the study compared the perceptions of athletes who experienced a successful transition from junior-to-senior sport, to those who did not make the transition. A successful transition was defined as - where an athlete had achieved their peak performance within the senior age-group and had gone on to represent the senior Great Britain team at major championships. Whereas, an unsuccessful transition was identified as - where an athlete had experienced international junior success by competing for Great Britain at either a World or European u23 championships, but then had not gone on to produce a personal best performance as a senior athlete and had not gone on to represent the senior Great Britain team at a major championships.

Semi-structured interviews were conducted with British track-and-field athletes (n=10) who had experience of either successfully or unsuccessfully negotiating the junior-to-senior transition. Thematic analysis of the data (Braun et al., 2019) identified 23 factors and 25 factors that were perceived to influence the junior-to-senior transition by athletes who had successful and unsuccessful transitions, respectively. These factors were categorised into 4 overarching themes; individual factors, external factors, cultural factors, and intervention strategies, as identified in the proposed model in study 1 of the thesis.

The results highlighted several differences between athletes who had experienced a successful transition compared to those who were unsuccessful in making the junior-to-senior transition. For instance, athletes who made a successful transition believed they possessed many psychological attributes that facilitated their transition (e.g., determination and

commitment, confidence, work ethic, intrinsic motivation, patience, and resilience). Whereas athletes who were unsuccessful in their transition identified two psychological facilitators which they perceived to assist their transition, which were resourcefulness and patience. Additionally, athletes who were unsuccessful in making the transition identified many factors than hindered their transition (e.g., competition behaviours, sacrifices did not seem worth it, exclusive athletic identity, unrealistic expectation of the transition period and progression) compared to their successful counterparts.

The knowledge presented in study 3 helped to identify the factors that athletes perceived to influence their transition experiences in the context of British track-and-field. The study offers a comparison between athletes who were successful in their transition outcome compared to athletes who were not. This information may help researchers, practitioners, athletes, and coaches to understand the salient factors that can influence athletes' transitions. For example, practitioners can use this knowledge to foster specific attributes within transitioning athletes that were perceived as facilitating a successful transition (e.g., social support, intrinsic motivation, achieving a life balance, coping strategies).

#### **9.2.4 Study 4**

To advance the knowledge on the junior-to-senior transition, and to overcome the methodological limitations of the previous study, study 4 used a longitudinal narrative design to explore athletes' perceptions of the junior-to-senior transition. The purpose of study 4 was to explore athlete's personal narrative of their transition experiences, including factors that influenced their transition and identify any changes in perceptions that occur during the various phases of the transition.

Over a 12-month duration, three semi-structured interviews were conducted with 6 athletes (4 females, 2 male), all of whom were at various stages of the junior-to-senior

transition. The interviews were designed to explore athletes' experiences and perceptions of the transition, specifically factors and strategies that they perceived to hinder or assist progression. Structural analysis of the data (Sparkes & Smith, 2014) indicated that athletes perceive the transition is an ever-changing dynamic process, something which some previous research has failed to recognise (e.g., Bruner et al., 2008). First, the factors perceived to influence the transition vary amongst individuals. For example, a factor that one athlete perceives as particularly challenging (e.g., increase in pressure to perform) may not be identified by another athlete. Individual variation in athletes needs to be considered when negotiating the junior-to-senior transition. Furthermore, athletes who were further along in the transition process demonstrated a more extensive knowledge and understanding of the challenges of the transition than athletes who were at the earlier stages of the process. Therefore, interventions may look to educate athletes on the challenges and expectations of senior sport, to better prepare young athlete for the transition process.

### **9.2.5 Study 5**

In line with the identified gaps in the literature and encouraged by the results of previous studies of the thesis, the purpose of study five was to two-fold: (a) develop an intervention program, based upon previous findings in the thesis, to prepare and facilitate athletes for the junior-to-senior transition, and (b) to implement and evaluate the effectiveness and perceptions of the intervention.

Based on literature and previous studies in the current thesis, an intervention programme was designed to assist athletes through the junior-to-senior transition. The intervention focused on the holistic development of the athlete through the education of appropriate knowledge and skills that can be facilitative of the junior-to-senior transition.

The intervention was conducted with female (n=11) and male (n=2) British track-and-field athletes aged between 16 and 21. The procedure included the delivery of 14 2-hour

workshops covering a range of topics (e.g., mentoring, nutritional advice, effective time management) delivered over 11 weeks. The intervention was evaluated using The Transition Monitoring Survey (TMS; Stambulova et al., 2012) and social validation interviews.

The results from the TMS suggest the intervention was successful in increasing athletes preparedness to negotiate the junior-to-senior transition. Athletes that took part in the intervention experienced an increase in motivation to make the transition, a decrease in perceived demands and an increase in the use of coping strategies to facilitate the move. Through thematic analysis (Braun et al., 2019) of the social validation data athletes identified (a) a greater understanding of the transition process, (b) increase in readiness to transition, (c) the role of social support, (d) an increase in sport-related knowledge and, (e) improvements to the intervention. The intervention educated and equipped athletes with many resources that may be helpful in facilitating a successful transition outcome (e.g., coping strategies, support network). Sports organisations and governing bodies should look to implement research-informed interventions to support athletes with career transition such as the junior-to-senior transition.

### **9.3 General Discussion**

From a theoretical perspective, one of the advancements of the current thesis is that it offers a new model (see Figure 4.2), called the individual, external, cultural model of the junior-to-senior transition. Study 1 of the thesis (see chapter 4) synthesised the current literature associated with the junior-to-senior transition and provided a model which represents the main findings and can be tested in future research.

Based upon the meta-synthesis, the model proposes that there are three underpinning features of the junior-to-senior transition, transition preconditions, transition variables, and transition outcomes. Alongside these, there may (or may not) be interventions which support athletes as they go through the process. The thesis explored the transition variables that were

perceived to influence British track-and-field athletes as they make the step up into senior sport. These variables were defined as individual factors, external factors, and the cultural and organisational values. The variables can be either facilitative, debilitative, or neither. The transition variables will now be discussed in more detail to demonstrate advancements offered by the thesis.

### **9.3.1 Transition Variables**

**9.3.1.1. Facilitators to the Transition.** Throughout the thesis, individual and external facilitators were indicated as factors that could aid athletes' transition from junior-to-senior sport. Athletes identified a number of psychological attributes that they perceived to facilitate their transition into senior sport, which parallels current transition research, such as determination (e.g., Morris, 2013), confidence (e.g., Jones et al., 2014), work-ethic (e.g., Mills et al., 2012), and resilience (e.g., Stambulova et al., 2017).

Athletes identified that having an understanding and knowledge of the transition process was an individual facilitator to the transition. Study 1 of the thesis highlighted that athletes' perception of the transition, and how accurate (or otherwise) this is, may determine the influence their perceptions have on transition outcome. Fundamentally, if athletes lack knowledge regarding the upcoming transition, and overestimate or underestimate the challenge associated with the step up into senior sport, they are likely to experience a more difficult transition process (Čačija, 2007; Morris, 2013). In study 4 of the thesis, when exploring the perceptions of athletes currently going through the transition, several athletes perceived that nothing would change during the junior-to-senior transition. These same athletes have gone on to experience demands related to the transition (e.g., increase in pressure to perform, qualification standards too high, and a lack of progression). It is postulated that if these athletes had a better understanding of the transition and the factors

associated with making the step up in level, they would be better prepared to cope with and manage these challenges.

Achieving a life balance has also been identified in the current thesis as an important factor when making the transition into senior sport. Athletes who can successfully balance the numerous spheres of their lives (e.g., sport, work, education and social life), and avoid developing an exclusive athletic identity are more likely to experience a smoother transition into senior sport (Jones et al., 2014). Athletes who experience difficulty in managing their life around their sporting commitments were more likely to cease participation in sport (Morris, 2013). Athletes who took part in studies 3 and 4 identified the ability to balance their various commitments helped them feel ready to negotiate the transition. On the other hand, athletes also recognised that being unable to balance their education, work and training was a considerable demand associated with making the step up into senior sport. Athletes discussed the need to be able to manage their time effectively, especially during busy periods. For example, many athletes spoke about difficulties balancing their training and education especially during the competition season and examination periods. This was reflected in the intervention delivered in study 5 of the thesis, several workshops (e.g., time management, goal setting) were focused on assisting athletes to manage the various spheres of their lives.

As with previous literature, social support has consistently been highlighted throughout the thesis as a crucial external resource for athletes negotiating the transition into senior sport. Studies 1, 3 and 4 emphasised the need for athletes to have access to a good support network, which was reflected in intervention from study 5 where there was an emphasis on educating athletes on the role of social support and provide them with opportunities to widen their support network (e.g., through mentoring). Athletes cited several sources of social support which were important to them including; partners, siblings, teammates, training partners, organisational and sport science staff. However, parents and

coaches were regularly recognised as the most salient relationships during the transition, which supports current research (e.g., Wylleman & Lavallee, 2004).

**9.3.2 Debilitators to the Transition.** The findings from the current thesis identified many factors that were perceived to hinder athletes' progression from junior-to-senior sport. Some of these factors include psychological attributes (e.g., complacency, lack of belief in abilities), coach-athlete conflict, inadequate social support, time pressures, increased pressure to perform, setbacks/injuries, and financial demands. Several athletes suggested an increase in pressure to perform as a senior athlete was a source of stress during the transition. When transitioning into senior sport, athletes believed that they were under more pressure to perform, sport became more serious, and they were required to prove their abilities (e.g., Čačija, 2007; Morris, 2013a; Olsson & Pehrson, 2014). Although athletes in study 3 and 4 identified that competing at the World Junior Athletics Championships was a positive experience (e.g., increased motivation to transition), they also perceived that their early international experiences may have also hindered their progress. Athletes perceived there was an increase in pressure following their performances at a World Junior Championships, which they believed to be debilitative towards to transition outcome. Many athletes referred to the pressure of making the transition and the pressure associated with making continual progress from the elite junior ranks into the seniors. This pressure can be particularly apparent in a sport like athletics because of the individual nature and the clear objective performance markers which are often used to determine whether a performance is good or bad (Hollings et al., 2014b). Through the intervention, athletes were able to engage with senior role model who had experience competing on the world stage and understood how they managed the pressure of the transition. Junior athletes were then supported to develop their own coping strategies (e.g., build a support network, visualisation, goal setting) to manage the various demands including the perceived increase in pressure at a later workshop.

**9.3.3 Cultural and Organisational Factors.** One of the most prominent findings from the thesis refers to the perceived lack of support from the national governing body, particularly concerning the support provided for developing athletes to make the step up into senior level. Athletes across all studies of the thesis, whether they were junior athletes currently going through the transition, retired athletes who were unsuccessful in making the transition, Olympians, or WCPP funded athletes, all cited a lack of support from their national governing body, British Athletics. According to Fletcher and Wagstaff (2009) national sporting organisations “have an ethical obligation to create performance environments which facilitate individual and group flourishing” (p. 432). Despite this premise, organisational culture has been identified as being a potential source of stress for athletes (Arnold, Fletcher, & Daniels, 2013) and as a result can have a significant influence on performance (Gould, Greenleaf, Guinan, & Chung, 2002) and talent development (Henriksen, 2015). Organisational stressors may include ambiguous selection processes, perceived financial favouritism, tense training environment, a poorly organised training or competition environment, a lack of communication among athletes or between athletes and staff, leadership issues, and tension between athletes (Fletcher & Hanton, 2003). The overarching consensus from athletes in the current thesis was that they did not feel supported by their national governing body. Athletes perceived that British Athletics did not care about them as a person away from the sport and were not interested in supporting their holistic development. Athletes referenced a number of specific stressors including - a lack of support, no clear development pathway, pressure to move to high performance centre, pressure to change coach, unfair funding structure and decisions, unfair and ambiguous competition selection decisions, lack of communication between athletes and NGB, and a lack of interest in the person behind the athlete. Due to the influence organisational stressors can have on athletes’ performance and general wellbeing, sports organisations at an elite level, need to

carefully consider the environment within which their athletes are operating (Fletcher & Hanton, 2003).

Recent studies have acknowledged the national culture and sport organisation systems as important factors in athletes' transitions and advocated a holistic approach to athlete development (Alfermann, Stambulova, & Zemaityte, 2004; Stambulova, Stephan, & Järphag, 2007). For example, the holistic ecological approach to talent development in sport (Henriksen et al., 2010) shifts the focus from the individual athlete to the environment in which they develop and focuses on the explicit features of the environment in which prospective elite athletes develop (Henriksen et al., 2014). The researchers suggested that athletic talent development environments (ATDEs), whilst being unique, also share many standard features. These features include opportunities for inclusion in a supportive training community; role models; support of sporting goals by the wider environment; focus on long-term development rather than short-term success; a coherent organisational culture; and the integration of efforts between sport, school, family and other components of the environment (Henriksen et al., 2014). Findings from the current thesis (study 3 and 4) suggest the environment for developing British athletes demonstrates a lack of these features (e.g., a coherent organisational culture, focus on long-term development, a supportive training community).

Henriksen et al. (2010) analysed the athletic talent development environment of a Swedish track and field club, IFK Växjö, which has succeeded in supporting and creating world-class athletes. The club focuses on maintaining cohesive groups of athletes and occasionally encourage younger athletes to train with older, more experienced athletes, intending to ease their transition into senior sport. Also, the coaches at IFK Växjö focus on athletes' long-term development and evaluate their efforts and attitude rather than results, which minimised stress and burnout. The club demonstrated "a strong organisational culture,

characterised by values of open co-operation, by a focus on performance process and by a whole-person approach” (Henriksen et al., 2010, p. 122). This HEA approach emphasises essential principles for national governing bodies to consider when implementing interventions to support athlete development. These principles informed by the holistic ecological perspective include: (1) conducting interventions inside the athletes’ environment; (2) acknowledging the broader cultural setting (e.g., a national culture or a sport-specific culture); (3) aiming to optimise the entire environment around the athlete or team, particularly in terms of the organisational culture; and (4) viewing the athletes as whole human beings and supporting their holistic development (Larsen et al., 2014). As identified throughout the thesis, the current organisational culture has been consistently described by athletes as hindering their transition into senior sport. In order for athletes to develop and reach their full potential, it is crucial to create a motivational environment that focuses on holistic development (Hollings, 2014). Athletes who were interviewed in this thesis commented on the lack of support from the national governing body, specifically that they are only interested in athletes performances and not the person behind the performance. This information may guide national governing bodies and sports organisations to look beyond performance markers exclusively when developing talent, and instead consider the broader environmental and cultural factors when addressing the challenges faced during the retention and development of athletes. As highlighted in study 2 (see chapter 5), despite increased investment in supporting the development of junior athletes to become elite senior athletes, British Athletics is still producing many athletes who are unable to make the transition successfully and reach their full potential. Developing more appropriate support systems in place may alleviate some of the organisational debilitators athletes experience and encourage a smoother transition.

**9.3.4 Intervention.** The current findings from the thesis highlighted several interventions that athletes perceived would or could have assist them during the junior-to-senior transition (study 1, 3, 4, and 5). Athletes identified interventions that they perceived would have aided their transition would have helped with developing coping strategies to manage the demands of the process, assist them in developing a support network (e.g., mentorship scheme), and helped them develop sport and life skills. Nevertheless, one of the most prominent interventions indicated by athletes in the thesis was the need for educational programmes. Educational programmes can be used to provide transitioning athletes with information regarding associated challenges, resources and coping strategies.

The intervention looked to provide athletes with appropriate education in order for them to manage sport and non-sport demands whilst negotiating the transition. Athletes involved in the intervention were educated in several areas including nutrition, physiology, psychological skills (e.g., coping strategies), lifestyle skills (e.g., time management, financial planning). Through the intervention athletes perceived they had a better understanding of the transition process. A prior knowledge and understanding of the transition process can benefit athletes in their perceived readiness to move into the senior age group, as well as increasing key stakeholders understanding of the type of support to provide for transitioning athletes (Bruner et al., 2008; Morris et al., 2016).

In addition to education, the mentoring workshop delivered in study 5 of the thesis, as part of the intervention programme, was well received by athletes on the programme. Athletes interviewed for the current thesis perceived they would benefit from mentoring from a senior athlete by learning critical skills and expected behaviours, as well as hearing first-hand some of the challenges of the transition and how their mentor coped with these. Researchers suggest (e.g., Bruner et al., 2008) athletes who have access to a senior role model or mentor are more likely to successfully transition from junior-to-senior level because

they have developed a better understanding and knowledge of what is expected of them during the step-up in level. Nevertheless, this thesis is one of the first to use a mentorship programme as part of a wider intervention to support athletes through the junior-to-senior transition and evaluate its effectiveness. Athletes who took part in the intervention discussed through the mentorship programme that they were able to gain a better understanding of the transition process (e.g., challenges, expected behaviours). Athletes also perceived they benefited from hearing and learning from athletes who had experienced both a successful and unsuccessful transition into senior sport as they were able to compare experiences.

#### **9.4 Applied Implications**

Based upon the findings from the current thesis several considerations and recommendations could be used to guide practice. The findings from the thesis identify the key factors associated with the transition from junior-to-senior level in sport. First, the meta-study (study 1) provided a comprehensive account of the facilitators and debilitators associated with the transition outcome. Consistent with existing literature (e.g., Pummell, 2008; Morris, 2013; Stambulova, 2010) the thesis has identified a number of factors that can facilitate the junior-to-senior transition (e.g., social support, understanding of the transition process, work-ethic), in addition to a number of debilitative factors (e.g., inadequate social support, organisational stressors, time pressure). This knowledge can be used to assist athletes who are approaching and negotiating the junior-to-senior transition. For example, from a practitioner perspective, practitioners can use this knowledge to identify potential facilitators and debilitators to the transition, recognise the need for intervention and support to assist athletes in transition. Practitioners can use this knowledge to examine the unique factors influencing an individual transitioning from junior-to-senior sport. By specifically developing an understanding of athletes' unique experiences through personal narratives,

practitioners can introduce educational programmes and intervention where support is more individually tailored to athletes' needs.

Findings from the thesis also suggest that interventions to support athletes in transition should take a holistic view of athlete development, with positive results being demonstrated from study 5 of the thesis. Research on career transition in sport has shifted from a focus on the process of retirement into a holistic, lifespan approach (Wylleman, Theeboom, & Lavallee, 2004). Moving forward, transition research and intervention programmes should focus on the holistic development of an athlete, as well as their development as a person away from their sport (Henriksen et al., 2009). As recognised in the current thesis, athletes should be supported to achieve a balance between the various spheres of their lives (e.g., sport, education, social life), and develop transferable skills (e.g., goal setting, time management) that can facilitate transition both in and outside of sport

Similarly, the current programme of research includes further recommendations for organisations supporting athletes in transition, especially British track-and-field athletes. Throughout the thesis, athletes have highlighted several criticisms of the national governing body, British Athletics, specifically regarding a lack of support when trying to make the step up into the senior ranks. The influence of this research on the practice of talent development in Great Britain is currently unknown. Nevertheless, the thesis has several recommendations for organisations supporting athletes in transition. First, it is recommended that sports organisations invest in the holistic development of their current and future athletes. A significant number of athletes who took part in the thesis referred to a lack of support from the national governing body, which I feel needs to be addressed. Athletes perceived that the governing body was only interested in their competitive performances and was not interested in the development of the person as well as the athlete. Therefore, sports organisations should be encouraged to develop holistic programmes to support transitioning athletes across various

sporting and non-sporting domains to develop transferable skills and coping strategies to manage inevitable transitions. Organisations should be encouraged to assess and support athletes' individual needs regularly, as the results of the thesis, I suggest the transition into senior sport is a dynamic and continuously evolving process. Throughout these interventions, significant others (e.g., coaches, parents, teammates) should be educated on their role in the transition, how this might evolve and change, and how to appropriately support athletes' in transition.

Finally, findings from the meta-synthesis (study 1) provides a framework which can be used by practitioners to understand athletes' experiences, the challenges they are experiencing and the potential resources that can be developed through appropriate intervention.

## **9.5 Strengths and Limitations**

### **9.5.1 Strengths of the Thesis**

A particular strength of the thesis was the homogenous sample which was used throughout. The exploration of a specific group of athletes means the results from the thesis has yielded a more detailed understanding of the transitional experiences in the specific context of British track-and-field. Other track-and-field athletes may be able to relate to and draw parallels between their experiences and that of the participants in the current thesis, helping athletes to understand how to cope with the challenges associated with the transition. Similarly, it is proposed that the elite sample included throughout the studies is another strength of the thesis. Specifically, the thesis used a range of elite junior and senior track-and-field athletes, as well as athletes who were successful and unsuccessful in making the transition into senior sport. The sample provided a variety of experiences and knowledge from athletes ranging from World Junior Champions to Olympic and World medallists.

A further strength of the thesis was the combination of both qualitative and quantitative research methods. With a lack of research looking at the junior-to-senior transition from the perspective of British track-and-field athletes, it was necessary to qualitatively explore the factors associated with the transition, obtaining in-depth and rich data (Patton, 2002). In addition, the final study of the thesis, provided a greater understanding of the impact of the intervention with the inclusion of both quantitative (e.g., questionnaires) and qualitative methods (e.g., social validation interviews) to better understand its effectiveness.

Finally, it is proposed that development of an intervention, based on previous empirical research in the thesis was a significant strength of the thesis. This advancement highlights the significant development of knowledge that has evolved throughout this programme of research, leading to the implementation and evaluation of the intervention. The implementation of the intervention is a valuable contribution to the literature, and the first within this population and offers a significant advancement with recommendations for practitioners and organisations to consider when developing an intervention to assist athletes in transition.

### **9.5.2 Limitations of the Thesis**

First, although identified as a strength of the thesis due to the rich understanding of the sport-specific context, only using participants from track-and-field could be considered a limitation of the thesis. Although generalisability is not the intention of qualitative research enquiries, the samples used in studies 2-5 mean that the findings may not transfer and limits the possibility of generalising the findings to other populations (e.g., football). That said, it is believed that many of the factors associated with the junior-to-senior transition in track-and-field would be relevant across various sport and performance contexts (e.g., increase in pressure to perform, increase in the physicality of training). The delivery of an intervention,

as in study 5 of the thesis, to a different sport context, may need minor adjustments to the intervention programme. For example, team sports may wish to add workshops addressing how to manage moving from one club to another, or the challenges associated with joining a new team.

## **9.6 Suggestions for Future Research**

First, the current thesis has highlighted several factors believed to be associated with the junior-to-senior transition. Nevertheless, due to the exploration within the specific context of track-and-field, including the sample and design, the results of the programme of research are not necessarily generalisable to other populations. Thus, it is proposed that there is a need for future research to continue to explore the junior-to-senior transition, in particular, the factors that influence the transition for developing athletes across different sports and cultures. Stambulova et al. (2009) argued that there is a need for researchers to focus on the cultural and cross-cultural aspects of athletic and non-athletic transitions. For example, the current programme of research identified several cultural and organisational factors that negatively influenced athletes' transition experiences in British track-and-field. These findings are likely to be specific to British track-and-field athletes and the national governing body - British Athletics.

Further investigation into other nations and sports would be necessary to establish if similar results would be evident across different cultures and practices. Therefore, future research which examines other contexts and the sport-specific facilitators and debilitators influencing the junior-to-senior transition will help to generate new knowledge on the specific demands experienced by athletes in their respective sports. This knowledge can be used to design and implement sport-specific interventions to assist athletes through the junior-to-senior transition.

As the demands associated with the transition may vary within different sports (Stambulova et al., 2009), a second future research direction would be to use the knowledge gained through sport-specific enquiry to inform the delivery of sport-specific intervention to support athletes approaching the junior-to-senior transition. The current intervention was the first to support athletes amidst the transition into senior sport in the specific population of British track-and-field athletes, meaning the intervention programme may not be applicable across other sports. Therefore, future research should look to deliver empirically informed interventions across a wide range of sporting contexts to develop knowledge and better understand how interventions can be applied and adapted for various athletes, sports, and cultures. Furthermore, future research should look to longitudinally track the progression of athletes involved in such intervention programmes to assess the effectiveness of assistance programmes.

Finally, future research should look to address current gaps in the transition literature discussed in study 1 of the thesis. As highlighted in the meta-study, there were several methodological considerations identified. Research on the junior-to-senior transition in sport has primarily used a single interview as their method of data collection; therefore, future research may look to continue to employ narrative and longitudinal approaches, as employed in the current thesis, to gain an understanding of athletes' unique experiences of the junior-to-senior transition. Moreover, future research should look to diversify the samples under scrutiny to broaden the scope of knowledge and overcome the lack of knowledge present in respective samples; for example, including a variety of cultures and female athletes. Developing this knowledge may be vital in deepening the sport, culture, and gender-specific knowledge needed when providing tailored support to athletes going through the junior-to-senior transition.

## 9.7 Concluding Remarks

This thesis achieved its primary purpose and fulfilled the proposed aims of the respective studies. First, the thesis achieved its central purpose, which was to expand the knowledge of junior-to-senior transition in a sport-specific context in the UK. The thesis has made a significant contribution to the literature by providing a review and synthesis of the current research on the junior-to-senior transition in sport and provides a new model of transition to better explain the various factors involved in the transition (e.g., The individual, external, cultural model of the junior-to-senior transition; Study 1). The thesis went on to explore the transition from the specific context of British track-and-field. After identifying the current retention and progression rates of British athletes from elite junior-to-senior level, the need to explore the specific factors influencing the transition was apparent. The identification of factors that were perceived to facilitate and debilitate athletes' transitions into senior athletics were explored and subsequently informed the design, implementation, and evaluation of an intervention to support athletes approaching the junior-to-senior transition. It is proposed that this knowledge, not only has the potential to benefit athletes but practitioners, coaches, and sports organisations alike. Sports psychologists, national governing bodies, and other sporting organisations should look to support young developing athletes through the delivery of educational interventions aimed at enhancing the necessary skills, attributes, and personal resources to increase the likelihood of experiencing a successful transition and flourishing in the competitive senior environment.

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## Appendix A: Critical Appraisal Skills Programme (Study 1)

*Assessment of retained studies against CASP (2018) Qualitative Research Checklist.*

[illegible]

Morris, Tod, & Oliver (2016)	√	√	√	√	√	√	√	√	√	√
Morris (2013a)	√	√	√	√	√	√	√	√	√	√
Morris (2013b)	√	√	√	√	√	√	√	√	√	√
Morris (2013c)	√	√	√	√	√	√	√	√	√	√
Olsson, & Pehrson (2014)	√	√	√	√	√	?	√	√	√	√
Pummell (2008a)	√	√	√	√	√	√	√	√	√	√
Pummell (2008b)	√	√	√	√	√	√	√	√	√	√
Pummell (2008c)	√	√	√	√	√	√	√	√	√	√
Pummell, Harwood, & Lavallee (2008)	√	√	√	√	√	√	√	√	√	√
Pummell, & Lavallee (2019)	√	√	√	√	√	√	√	√	√	√
Røynesdal (2015)	√	√	√	√	√	√	√	√	√	√
Stambulova, Pehrson, & Olsson (2017)	√	√	√	√	√	√	√	√	√	√
Vujic (2004)	√	√	√	√	√	X	X	√	√	√

Note: √ = appropriate; ? = can't tell/incomplete; X = inappropriate. RA = Research aims; QM = Qualitative methodology; RD = Research design; RS = Recruitment strategy; DC = Data collection; Rel = Relationships; EC = Ethical considerations; DA = Data Analysis; CF = Clear findings; RV = Research value; Ret = Retained.

## **Appendix B: Information Sheet and Consent Form (Study 3)**

### **LIVERPOOL JOHN MOORES UNIVERSITY PARTICIPANT INFORMATION SHEET**

**Title of Project**

Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

**Location:**

School of Sport and Exercise Sciences, Liverpool John Moore University

**Investigators:**

Karla Drew, Dr. Robert Morris, Dr. David Tod, and Dr. Martin Eubank

You are being invited to take part in a research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask us if there is anything that is not clear or if you would like more information. Take time to decide if you want to take part or not.

**What is the purpose of the study?**

Hello, my name is Karla Drew. I have been involved in the sport of athletics for over 15 years as an athlete. I am currently studying a PhD at Liverpool John Moores University. The title of my thesis is: Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

I am inviting you to take part in my research project which is part of my PhD thesis. This project involves exploring athletes, coaches, parents, and other support staffs' opinions on what it takes to successfully move from being an elite junior athlete to an elite senior athlete. The transition from junior-to-senior competition may present many challenges to young athletes, and so often we see successful young athletes who fail to replicate their junior successes on a senior stage.

You should decide whether or not you would like to be involved in this research and take part in this study. Participation is completely optional, but the outcome of the study may support future athletes as they move from junior to senior sport.

**What will happen in this research?**

You will take part in one interview that will last approximately one hour. During the interviews, I will be interested in exploring your experiences, of the junior-to-senior transition in athletics. I will ask you questions relating to your personal experiences of the junior to senior transition. I am interested in hearing about what you found challenging about the transition process, as well as what resources you think support a more positive transition into senior competition. The interview will be audio recorded.

**Do I have to take part?**

No. Taking part in this study is entirely voluntary. If you would like to participate you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason.

**Are there any risks / benefits involved?**

There are no anticipated risks associated with taking part in this study. Should you feel the need to talk to a professional following our interaction you will be offered support from a qualified sport psychologist from Liverpool John Moores University.

Individual athletes may benefit from taking part in the intervention programme which will be designed to support junior athletes transitioning into senior sport. By taking part in the intervention athletes may be given the tools/knowledge to allow for a smoother progression into senior athletics.

### **Will my taking part in the study be kept confidential?**

The data you provide will be kept entirely confidential. The audio recordings of the interviews will be stored on a secure password protected computer at Liverpool John Moores University which only the researcher will have access too. The data will then be transcribed and analysed, with all electronic transcripts to be kept on a password protected computer in a secure office to ensure your data's security. To uphold anonymity within the write-up of the study, no personal names will be used and instead an alias (e.g., participant X) will be used when disclosing data collected.

**This study has received ethical approval from LJMU's Research Ethics Committee.**

### **Contact Details of Researcher:**

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Byrom Street  
Liverpool  
L33AF  
E-mail: [K.Drew@2016.ljmu.ac.uk](mailto:K.Drew@2016.ljmu.ac.uk)

### **Student Supervisor:**

Dr. Robert Morris Lecturer in Sport and Social Sciences  
School of Sport and Exercise Sciences  
Liverpool John Moores University  
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L3 2AB  
Tel: 01519046230  
E-mail: [r.morris@ljmu.ac.uk](mailto:r.morris@ljmu.ac.uk)

### **Contact Details of Academic Supervisor**

**If you any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.**

## LIVERPOOL JOHN MOORES UNIVERSITY PARTICIPANT CONSENT FORM



### Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

**Karla Drew - School of Sport and Exercise Science**

1. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.
3. I understand that any personal information collected during the study will be anonymised and remain confidential
4. I agree to take part in the above study
5. I understand that the interview/focus group will be audio recorded and I am happy to proceed
6. I understand that parts of our conversation may be used verbatim in future publications or presentations but that such quotes will be anonymised.


Name of Participant

Date

Signature

Name of Researcher

Date

Signature

## **Appendix C: Interview Schedule (Study 3)**

### **Demographics**

**Age:**

**Gender:**                      Male

Female

**Nationality:**

**Athletic discipline:**

### **Introduction - Whole sport career**

When and how did you start your athletics?

When did you decide to become elite athlete?

What were your goals and expectations at that time?

Can you describe some of your important/special memories as an athlete?

Can you describe your athletics involvement over the past 2 months since moving up to senior sport? Probes: Playing career, successes, failures

### **Thoughts and feelings now, post move to senior sport**

What are your feelings about the move from junior to senior sport? Probes: Excitement, nerves, anxieties, stress?

How did you find your first season as a senior athlete?

### **Post-transition questions**

What factors do you believe are important to help you make the transition and continue to make progress?

What challenges did you encounter when attempting to transition as a senior athlete? Probe: What has made the transition hard?

What support did you use when moving from junior to senior level?

What support would you have liked, that you did not receive when moving from junior to senior level?

What strategies did you try to use to deal with these types of challenges?

### **Minimising Talent Loss**

What do you feel that can help other athletes when making the step up to senior athletics?

How do you believe you need to prepare to succeed at an elite level? Probe: What characteristics do athletes need to develop to be successful?

Have you ever considered dropping out? If so, why? If not, why do you think some athletes drop out?

Or

Why did you decide to drop out of athletics?

### **Summary**

What are your expectations for the next 12 months in senior sport? (if not retired)

Is there anything I should have asked you which I didn't, and you think is important to the situation you are currently in?

## Appendix D: Information Sheet and Consent Form (Study 4)

### **LIVERPOOL JOHN MOORES UNIVERSITY PARTICIPANT INFORMATION SHEET**

**Title of Project**

Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

**Location:**

School of Sport and Exercise Sciences, Liverpool John Moore University

**Investigators:**

Karla Drew, Dr. Robert Morris, Dr. David Tod, and Dr. Martin Eubank

You are being invited to take part in a research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask us if there is anything that is not clear or if you would like more information. Take time to decide if you want to take part or not.

**What is the purpose of the study?**

Hello, my name is Karla Drew. I have been involved in the sport of athletics for over 15 years as an athlete. I am currently studying a PhD at Liverpool John Moores University. The title of my thesis is: Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

I am inviting you to take part in my research project which is part of my PhD thesis. This project involves exploring athletes, coaches, parents, and other support staffs' opinions on what it takes to successfully move from being an elite junior athlete to an elite senior athlete. The transition from junior-to-senior competition may present many challenges to young athletes, and so often we see successful young athletes who fail to replicate their junior successes on a senior stage.

You should decide whether or not you would like to be involved in this research and take part in this study. Participation is completely optional, but the outcome of the study may support future athletes as they move from junior to senior sport.

**What will happen in this research?**

If you decide to take part in this research you will be interviewed by me on three occasions. During the interviews I will be interested in exploring your experiences, and perceptions of the junior-to-senior transition in athletics. In particular, I would be interested in hearing about what you find challenging about the transition, as well as what you think may support your progress through to senior competitions. Each interview will last approximately one hour and will be audio recorded. The three interviews will take place 4 months apart and will be scheduled for roughly the following dates:

1. Interview 1: This will take place in the month of June 2017
2. Interview 1: This will take place in the month of October 2017
3. Interview 1: This will take place in the month of February 2018

**Do I have to take part?**

No. Taking part in this study is entirely voluntary. If you would like to participate you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason.

**Are there any risks / benefits involved?**

There are no anticipated risks associated with taking part in this study. Should you feel the need to talk to a professional following our interaction you will be offered support from a qualified sport psychologist, Dr. Martin Littlewood, from Liverpool John Moores University (Email: [M.A.Littlewood@ljmu.ac.uk](mailto:M.A.Littlewood@ljmu.ac.uk)).

**Will my taking part in the study be kept confidential?**

The data you provide will be kept entirely confidential. The audio recordings of the interviews will be stored on a secure password protected computer at Liverpool John Moores University which only the researcher will have access too. The data will then be transcribed and analysed, with all electronic transcripts to be kept on a password protected computer in a secure office to ensure your data's security. To uphold anonymity within the write-up of the study, no personal names will be used and instead an alias (e.g., participant X) will be used when disclosing data collected. However, due to the profile of some of the athletes taking part in the study there is the possibility of participants being indirectly identified from the information stored and published. The researcher will try their utmost to remove as many of the distinguishing features of the participants as possible to ensure that they will not be easily identifiable.

**This study has received ethical approval from LJMU's Research Ethics Committee.**

**Contact Details of Researcher:**

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**Contact Details of Academic Supervisor**

**If you any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.**

## LIVERPOOL JOHN MOORES UNIVERSITY PARTICIPANT CONSENT FORM



### Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.

**Karla Drew - School of Sport and Exercise Science**

7. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily
8. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.
9. I understand that any personal information collected during the study will be anonymised and remain confidential
10. I agree to take part in the above study
11. I understand that the interview/focus group will be audio recorded and I am happy to proceed
12. I understand that parts of our conversation may be used verbatim in future publications or presentations but that such quotes will be anonymised.


Name of Participant

Date

Signature

Name of Researcher

Date

Signature

## **Appendix E: Interview Schedule (Study 4)**

### **Demographics**

**Age:**

**Gender:**                      Male                      Female

**Nationality:**

**Athletic discipline:**

### **Introduction - Whole sport career**

When and how did you start your athletics?

When did you decide to become elite athlete?

What were your goals and expectations at that time?

Can you describe some of your important/special memories as an athlete?

Can you describe your athletics involvement over the past 2 months since moving up to senior sport? Probes: Playing career, successes, failures

### **Pre-transition questions [junior athletes]**

Have you ever considered what it might be like to compete as an elite senior athlete?

What factors do you believe are important to help you make the transition to become a senior athlete?

Who or what do you think you could you not transition without? Probe: Role, how does this help?

Have you faced any challenges in the past to get to your level now?

What do you feel are some of the challenges you may face as you try to move from junior to senior level? Probe: What makes the transition hard?

How did you feel about moving up to U23 level?

Did you find any challenges/difference at u23 level?

Do you think you have learnt anything from competing at u23 level to help you when transitioning as a senior?

### **Pre-transition questions [u23 athletes]**

What are your feelings about moving up from u23 to senior level? Probes: Excitement, nerves, anxieties, stress?

Have you ever considered what it might be like to compete as an elite senior athlete?

What factors do you believe are important to help you make the transition to become a senior athlete?

Who or what could you not transition without? Probe: Role, how does this help?

What challenges have you overcome in the past to get to this position?

What do you feel are some of the challenges you may face as you try to move from u23 to senior level? Probe: What makes the transition hard?

What strategies do / have you used previously to deal with these types of challenges? Probe: when moving from junior to u23?

### **Thoughts and feelings now, (?) months post move to senior sport**

What are your feelings about the move to senior sport now you have moved up to senior athletics for ? months? Probes: Excitement, nerves, anxieties, stress?

### **Post-transition questions**

What factors do you believe are important to help you make the transition and continue to make progress?

Who or what could you not transition without? Probe: Role, how does this help?  
What challenges have you overcome in the past to get to this position?  
What do you feel are some of the challenges you are/ have faced since you moved from youth to senior level? Probe: What has made the transition hard?  
What strategies do / have you used previously to deal with these types of challenges?  
What strategies are you currently using to help deal with the junior to senior transition?

**Minimising Talent Loss**

What do you feel that can/has help you make the step up to senior athletics?  
How do you believe you need to prepare to succeed at an elite level? Probe: What characteristics do you to continue to develop to be successful?  
Have you ever considered dropping out? If so, why? If not, why do you think some athletes drop out?

**Moving Forward**

What do you think is important now if you are to continue to make progress?

**Summary**

What are your expectations for the next 12 months in senior sport?  
Is there anything I should have asked you which I didn't, and you think is important to the situation you are currently in?

## Appendix F: The Transition Monitoring Survey (study 5)

This survey is designed to monitor the process of athletes' transition from junior to senior level in sport.

### I. Introduction

1. Personal code: \_\_\_\_\_

2. Date: \_\_\_\_\_

3. Age: \_\_\_\_\_

4. Gender: ☐ Male ☐ Female

5. Sport: ☐ Individual ☐ Team

Please, specify your sport event: \_\_\_\_\_

6. Please, mark the highest level of competitions you participated in as a junior athlete:

☐ Local (e.g., district, regional competitions)

☐ National (e.g., national competitions)

☐ International (e.g., international competitions)

7. How long ago did you start to participate in competitions on the senior level in your sport or to play games with a senior team?

☐ Have not started the transition

☐ Less than 6 months ago

☐ Between 6 and 12 months ago

☐ Between 1 and 2 years ago

☐ More than 2 years ago

8. How motivated are you to establish yourself on the senior level in your sport?

1	2	3	4	5	6	7	8	9	10
Not									Very
at all									

9. How many hours per week do you currently spend in sport (including training and competitions)?

☐ Less than 10 hours

☐ Between 10 and 14 hours

☐ Between 15 and 18 hours

☐ More than 18 hours per week

10. If you currently do not spend usual amount of time in sport, due to an injury or off season etc., please, mark here: ☐

Specify, why: \_\_\_\_\_

11. Do you go to School, e.g., secondary high school or University/College?

☐ Yes ☐ No

12. If you work, please, mark here: ☐

Specify, hours/week: \_\_\_\_\_

### II. Current situation in sport and life

13. Below here is a list of various areas of adolescent athletes' life. Please, go through the list in the central column and evaluate each area two times. In the left column evaluate importance of each area for you right now; in the right column – your current satisfaction with each area. In both evaluations use 10-point scale, where 1 = very low; 10 = very high. Use the option n/a (not applicable) if a listed area does not refer to you.

Importance											Satisfaction											
Very high											Very low											
10	9	8	7	6	5	4	3	2	1	n/a	Sport	n/a	1	2	3	4	5	6	7	8	9	10
10	9	8	7	6	5	4	3	2	1	n/a	Studies	n/a	1	2	3	4	5	6	7	8	9	10



I prioritise the sport goals	1	2	3	4	5	6	7	8	9	10
I plan my development in sport	1	2	3	4	5	6	7	8	9	10
I plan my time for every day	1	2	3	4	5	6	7	8	9	10
I try to find a good balance between sport and other areas of my life	1	2	3	4	5	6	7	8	9	10
I try to keep good relationships with people around	1	2	3	4	5	6	7	8	9	10
I try to think positive in any situation	1	2	3	4	5	6	7	8	9	10
I try to give 100% in each practice and competition	1	2	3	4	5	6	7	8	9	10
I focus on my recovery/energy restoration	1	2	3	4	5	6	7	8	9	10
I persist on my tasks in spite of fatigue, pains or failures	1	2	3	4	5	6	7	8	9	10
I try to be patient and to see my progress as step-by-step process	1	2	3	4	5	6	7	8	9	10
I rely mostly on myself in solving my problems	1	2	3	4	5	6	7	8	9	10
Being in a difficulty I search for help of other people	1	2	3	4	5	6	7	8	9	10
I try to anticipate difficulties and be prepared in advance	1	2	3	4	5	6	7	8	9	10
I try to learn from my previous experiences in sport/life	1	2	3	4	5	6	7	8	9	10
I try to learn from others	1	2	3	4	5	6	7	8	9	10
Being in a stressful situation I express my negative feelings	1	2	3	4	5	6	7	8	9	10
Being in a stressful situation, I am trying to keep my head cool and analyse the situation	1	2	3	4	5	6	7	8	9	10
I make myself busy with different activities (e.g., music, internet, shopping) to think less about difficulties in sport	1	2	3	4	5	6	7	8	9	10

17. Below here is a list of various **environmental factors**. Evaluate the factor, e.g., the support you receive from your coach on a 10-point scale, where 1 = not at all; 10 = very much. Mark the option n/a (not applicable) if a listed factor does not refer to you. Please understand “support” as both support in the form of instructions and/or emotional support from other people or organisations.

	Very Little										Very much
Coach's support	n/a	1	2	3	4	5	6	7	8	9	10
Family support	n/a	1	2	3	4	5	6	7	8	9	10
Teammates support	n/a	1	2	3	4	5	6	7	8	9	10
Club/Federation support	n/a	1	2	3	4	5	6	7	8	9	10
Media support	n/a	1	2	3	4	5	6	7	8	9	10
	Very Poor										Very good
Condition for practice	n/a	1	2	3	4	5	6	7	8	9	10
Climate in the team	n/a	1	2	3	4	5	6	7	8	9	10

18. Below here is a list of various environmental factors. Evaluate the factor e.g., the pressure you receive from your coach, on a 10-point scale. Mark the option n/a (not applicable) if a listed factors does not refer to you. Please understand “pressure” as high expectations and/or critical comments from other people.

	Very Little										Very much
Coach's pressure	n/a	1	2	3	4	5	6	7	8	9	10
Family pressure	n/a	1	2	3	4	5	6	7	8	9	10
Teammates pressure	n/a	1	2	3	4	5	6	7	8	9	10
Club/Federation pressure	n/a	1	2	3	4	5	6	7	8	9	10
Media pressure	n/a	1	2	3	4	5	6	7	8	9	10
Opponents pressure	n/a	1	2	3	4	5	6	7	8	9	10
	Very Poor										Very good
Financial situation	n/a	1	2	3	4	5	6	7	8	9	10

19. Below here is a list of various personality factors and previous experiences. Evaluate the factor on a 10-point scale. Mark the option n/a (not applicable) if a listed factor does not refer to you.

	Very Little										Very much
Your sport motivation	n/a	1	2	3	4	5	6	7	8	9	10
Your self-expectations	n/a	1	2	3	4	5	6	7	8	9	10
Your self-confidence	n/a	1	2	3	4	5	6	7	8	9	10
	Very Poor										Very good
Your current health	n/a	1	2	3	4	5	6	7	8	9	10
Your current physical conditions	n/a	1	2	3	4	5	6	7	8	9	10
Your current technical abilities	n/a	1	2	3	4	5	6	7	8	9	10
Your current tactical abilities	n/a	1	2	3	4	5	6	7	8	9	10
Your current mental abilities	n/a	1	2	3	4	5	6	7	8	9	10
Your current communication abilities	n/a	1	2	3	4	5	6	7	8	9	10
Your former experiences in sport	n/a	1	2	3	4	5	6	7	8	9	10
Your former experiences in life	n/a	1	2	3	4	5	6	7	8	9	10
	Very minor										Very major
Your former injuries	n/a	1	2	3	4	5	6	7	8	9	10

20. To what extent do you currently feel adjusted as a senior athlete in your sport? Use the scale from 0-100% where 0 means that you don't feel adjusted at all on the senior level in your sport and 100% means that you feel completely adjusted.

0	10	20	30	40	50	60	70	80	90	100%
Not adjusted at all										Completely adjusted

21. Please, evaluate the areas of your sport and life listed in the central column from two points of view. In the left column, please evaluate **the stress level** you currently experience in each area (1 = very low stress; 10 = very high stress). In the right column, please, evaluate how

much **additional help/support do you need** in the listed areas of sport and life (1 = no need in any help; 10 = very strong need to get help). Use the option n/a (not applicable) if a listed personal factor does not refer to you.

**Your perceived stress**

**Your perceived need in additional help/support**

Very high										Very low										No need										Very strong need									
10	9	8	7	6	5	4	3	2	1																														
10	9	8	7	6	5	4	3	2	1																														
10	9	8	7	6	5	4	3	2	1																														
10	9	8	7	6	5	4	3	2	1	n/a																													
10	9	8	7	6	5	4	3	2	1																														
10	9	8	7	6	5	4	3	2	1																														
10	9	8	7	6	5	4	3	2	1																														

22. Have you received any assistance of a sport psychology consultancy during the last 6 months?

☐ Yes ☐ No

23. If yes, please evaluate how helpful was your work with the sport psychologist:

1	2	3	4	5	6	7	8	9	10
Not									Very
at all									helpful

24. Do you want to meet a sport psychology consultant in the near future?

☐ Yes ☐ No

If you want help contacting a sport psychology consultant write your email address on the first page.

## Appendix G: Information Sheet and Consent Form (Study 5)



### PARTICIPANT INFORMATION SHEET

#### **Title of Study Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.**

**School/Faculty:** School of Sport and Exercise Sciences, Liverpool John Moore University

#### **Name and Contact Details and status of the Principal Investigator:**

PhD Student  
Karla Drew  
Sport and Exercise Sciences  
Tom Reilly Building, Byrom Street  
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L3 3AF  
t: 07795260025  
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#### **Name and Contact Details of the Investigators:**

Robert Morris  
School of Sport and Exercise Sciences  
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You are being invited to take part in a research study. Before you decide it is important for you to understand why the study is being done and what participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

#### **1. What is the purpose of the study?**

The transition from junior-to-senior competition may present many challenges to young athletes, and so often we see successful young athletes who fail to replicate their junior successes on a senior stage. I am inviting you to take part in my research project which is part of my PhD thesis. This programme involves the delivering of an intervention to support junior athletes who are approaching the transition into senior sport. Athletes will have access to a wide range of educational resources and skill development. Topics covered on the programme include: sport psychology, mentoring scheme, performance lifestyle, nutrition etc. This study hopes to identify the resources that are particularly useful in facilitating the transition from junior to senior sport.

You should decide whether or not you would like to be involved in this intervention and take part in this study. Participation is completely optional, but the outcome of the study may support future athletes as they move from junior to senior sport.

## **2. Why have I been invited to participate?**

You have been invited because you have not yet made the transition into senior sport (aged between 18-22), and regularly compete in British track and field. In total there will be 5-10 athletes taking part in the intervention.

The inclusion criteria are;

- Aged between 18-22
- Compete in UK track-and-field

## **3. Do I have to take part?**

No. It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form – if applicable. You can withdraw at any time by informing the investigators without giving a reason and without it affecting your rights/any future treatment/service you receive.

## **4. What will happen to me if I take part?**

### **Questionnaire.**

Athletes will be asked to complete a questionnaire prior to the start of the intervention and then again at the end of the intervention. The questionnaire is ‘The transition Monitoring Survey’ and will be used to establish the effectiveness of the intervention.

### **Intervention contents.**

If you decide to take part in this research you will have the opportunity to take part in the junior-to-senior intervention designed to support junior athletes who are transitioning. There are five compulsory sessions, and athletes are able to tailor their programme to suit their needs and the areas they would like to develop. All sessions will take place at the English Institute of Sport in Sheffield.

A course outline can be seen below:

<b>Session</b>	<b>Session description.</b>	<b>Proposed date</b>
1	Introduction	Friday 27 <sup>th</sup> July
1	Talk: A Successful Transition by Jessica Ennis-Hill	Friday 27 <sup>th</sup> July
1	Talk: A Challenging Transition by Matthew Lambley	Friday 27 <sup>th</sup> July
2	Personality: Understanding your personality (Spotlight profile)	Week commencing July 30 <sup>th</sup>
3	Performance Lifestyle: Achieving a Life Balance	Week commencing Aug 6 <sup>th</sup>
3	Performance Lifestyle: Effective Time Management	Week commencing Aug 6 <sup>th</sup>
4	Sport Psychology: Coach-Athlete Relationship	Week commencing Aug 13 <sup>th</sup>

4	Sport Psychology: Building Confidence	Week commencing Aug 13th
5	Performance Lifestyle: Financial Advice/Planning	Week commencing Aug 20th
5	Mentoring: Learn from experienced senior athletes	Week commencing Aug 20th
6	Sport Psychology: Coping Strategies to Manage the Transition	Week commencing Sep 3rd
7	Sport Psychology: Goal Setting for the Transition Period	Week commencing Sep 10th
7	Social Support: Creating a Support Network	Week commencing Sep 17th
8	Social Support: Supporting your Athlete through the Transition – Strategies for Parents	Week commencing Sep 24th
9	Social Support: Supporting your Athlete through the Transition – Strategies for Coaches	Week commencing Oct 1st
10	Nutrition: Fueling your body during the junior-to-senior transition	Week commencing Oct 8th
11	Physiotherapy: Looking after your body during the junior-to-senior transition	Week commencing Oct 15th
N/A	Sport Psychology: One-on-One Support	N/A

### **Intervention feedback.**

#### *Semi-structure interviews.*

Follow the completion of the intervention programme athletes will be asked to provide feedback on the programme. Athletes will take part in a semi-structured interview which will be used to explore athlete's perceptions of the programme. During the interviews, I will be interested in exploring your experiences, and perceptions of the intervention. In particular, I would be interested in hearing about what you found particularly useful about the programme as well as areas for improvement. Each interview will last approximately one hour and will be audio recorded. Interviews will take place at the English Institute of Sport in Sheffield.

### **5. Will I be recorded and how will the recorded media be used?**

The audio and/or video recordings of your activities made during this study will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

Interviews will be audio recorded on a password protected audio recording device and as soon as possible the recording will be transferred to secure storage and deleted from the recording device.

### **6. What are the possible disadvantages and risks of taking part?**

There are no anticipated risks associated with taking part in this study. Should you feel the need to talk to a professional following our interaction you will be offered support from a qualified sport psychologist, Dr. Martin Littlewood from Liverpool John Moores University (Email: M.A.Littlewood@ljmu.ac.uk).

## 7. What are the possible benefits of taking part?

The benefits of taking part in the intervention is athletes will be given access to a variety resources and education across a wide variety of disciplines, which would usually be acquired at a cost. Individual athletes may benefit from taking part in the intervention programme that is designed to support current junior athletes who are approaching the transition into senior sport. By taking part in the intervention, athletes may be given the tools/knowledge to prepare them for a smoother progression into senior athletics. Just by raising an awareness amongst athletes may also prove to be beneficial when transitioning to senior competitions.

## 8. What will happen to the data provided and how will my taking part in this project be kept confidential?

The information you provide as part of the study is the **research study data**. Any research study data from which you can be identified (e.g., from identifiers such as your name, date of birth, audio recording etc.), is known as **personal data**. Personal data does not include data that cannot be identified to an individual (e.g., data collected anonymously or where identifiers have been removed).

If necessary, personal data will be stored confidentially for as long as it is necessary to verify and defend, when required, the process and outcomes of research. The time period may be a number of years. Personal data will be accessible to *the research team*.

- Personal data collected from you will be recorded using a linked code – the link from the code to your identity will be stored securely and separately from the coded data
- You will not be identifiable in any ensuing reports or publications.
- We will use pseudonyms in transcripts and reports to help protect the identity of individuals and organisations unless you tell us that you would like to be attributed to information/direct quotes etc.
- The interview recordings will be sent to an independent company who will produce a transcript
- Anonymised data might be used for additional or subsequent research studies and we might share anonymised data with other investigators (e.g., in online databases). All personal information that could identify you will be removed or changed before information is shared with other researchers or results are made public.

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## 9. Limits to confidentiality

Please note that confidentiality may not be guaranteed; for example, due to the limited size of the participant sample, the position of the participant or information included in reports, participants might be indirectly identifiable in transcripts and reports. The investigator will work with the participant in an attempt to minimise and manage the potential for indirect identification of participants.

The Investigator will keep confidential anything they learn or observe related to illegal activity unless related to the abuse of children or vulnerable adults, money laundering or acts of terrorism.

In certain exceptional circumstances where you or others may be at significant risk of harm, the investigator may need to report this to an appropriate authority. This would usually be discussed with you first. Examples of those exceptional circumstances when confidential information may have to be disclosed are:

- The investigator believes you are at serious risk of harm, either from yourself or others
- The investigator suspects a child may be at risk of harm
- You pose a serious risk of harm to, or threaten or abuse others
- As a statutory requirement e.g., reporting certain infectious diseases

- Under a court order requiring the University to divulge information
- We are passed information relating to an act of terrorism

#### **10. What will happen to the results of the research project?**

The investigator intends to *complete a dissertation to satisfy their degree programme, publish the results in a PhD thesis and a journal article.*

#### **11. Who is organising and [If applicable] funding/commissioning the study?**

This study is organised by Liverpool John Moores University and funded by the principle researcher and Liverpool John Moores University.

#### **12. Who has reviewed this study?**

This study has been reviewed by, and received ethics clearance through, the Liverpool John Moores University Research Ethics Committee (Reference number: xxx).

#### **13. What if something goes wrong?**

If you have a concern about any aspect of this study, please contact the relevant investigator who will do their best to answer your query. The researcher should acknowledge your concern within 10 working days and give you an indication of how they intend to deal with it. If you wish to make a complaint, please contact the chair of the Liverpool John Moores University Research Ethics Committee ([researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk)) and your communication will be re-directed to an independent person as appropriate.

If you are harmed by taking part in this research project, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for legal action. LJMU holds insurance policies which apply to this study. If you experience harm or injury as a result of taking part in this study, you will be eligible to claim compensation. This does not affect your legal rights to seek compensation.

#### **14. Data Protection Notice**

The data controller for this study will be Liverpool John Moores University (LJMU). The LJMU Data Protection Office provides oversight of LJMU activities involving the processing of personal data, and can be contacted at [secretariat@ljmu.ac.uk](mailto:secretariat@ljmu.ac.uk). This means that we are responsible for looking after your information and using it properly. LJMU's Data Protection Officer can also be contacted at [secretariat@ljmu.ac.uk](mailto:secretariat@ljmu.ac.uk). The University will process your personal data for the purpose of research. Research is a task that we perform in the public interest.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained.

You can find out more about how we use your information by contacting [secretariat@ljmu.ac.uk](mailto:secretariat@ljmu.ac.uk).

If you are concerned about how your personal data are being processed, please contact LJMU in the first instance at [secretariat@ljmu.ac.uk](mailto:secretariat@ljmu.ac.uk). If you remain unsatisfied, you may wish to contact the Information Commissioner's Office (ICO). Contact details, and details of data subject rights, are available on the ICO website at: <https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/individuals-rights/>

#### **16. Contact for further information**

Karla Drew  
 PhD Researcher  
 School of Sport and Exercise Sciences  
 Tom Reilly Building  
 Liverpool John Moores University  
 Byrom Street  
 Liverpool  
 L33AF  
 E-mail: K.Drew@2016.ljmu.ac.uk

**Thank you for reading this information sheet and for considering to take part in this study.**

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### **CONSENT FORM**

#### **Investigating the Junior-to-Senior Transition in Sport: Interventions to Support the Transitional Process.**

**Karla Drew - School of Sport and Exercise Science**

- |    |  |  |
|----|--|--|
| 1. | I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily |  |
| 2. | I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.                                       |  |
| 3. | I understand that any personal information collected during the study will be anonymised and remain confidential   |  |
| 4. | I agree to take part in the above study  |  |
| 5. | I understand that the interview will be audio recorded and I am happy to proceed   |  |
| 6. | I understand that parts of our conversation may be used verbatim in future publications or presentations but that such quotes will be anonymised.  |  |

Name of Participant

Date

Signature

Name of Researcher

Date

Signature

## **Appendix H: Interview Schedule (Study 5)**

### **Introduction:**

Me: First, I would like to thank you for taking part in the intervention. I hope you found it useful. I would now like to get your opinion on the programme contents. Your opinions are greatly valued, and I am looking forward to hearing what you all have to say on the delivery of the intervention.

### **Key Questions:**

What sessions in the intervention did you find particularly useful?

Why did you find these sessions useful?

What sessions in the intervention did you really enjoy?

Why did you find these sessions enjoyable?

What sessions did you not find very useful?

Why did not you find these sessions useful?

What do you think could have made the intervention programme better?

Do you have any recommendations on how to improve the programme?

What was your favourite session? And why?

Would you like to take part in an intervention programme like this again?

Is there any other type of support you would have liked that you did not receive?

Have you ever received any help like this prior?

Please tell me about any support you have previously received?

How did this intervention differ from any previous support?

Following the completion of the intervention do you feel readier to take the step up to senior sport than pre-intervention?

Following the completion of the intervention do you feel ready to take the step up to senior competition?

### **Summary**

Is there anything I should have asked you which I didn't, and you think is important to the youth to senior transition?