

Constraints Associated with Success or Failure in the Transition from Junior to Senior in Athletics: A Scoping Review Protocol

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Carvalho, R; Sarmento, H; Araujo, D.

Corresponding author:
Rui Carvalho

rui.carvalho.70@gmail.com

Author Affiliation:
Faculdade Motricidade Humana da
Universidade Lisboa.

ADMINISTRATIVE INFORMATION

Support - NA.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 October 2025 and was last updated on 12 October 2025.

INTRODUCTION

Review question / Objective The aim of this review is the transition from junior to senior in athletics. This review aims to synthesize current literature on the factors that influence success or failure during this transition, providing insights into best practices for athlete development and long-term performance sustainability.

Background The transition from junior to senior level represents a critical phase in the development of high-performance athletes, particularly in athletics, where physical, psychological and social demands intensify significantly. This transition is often described as the most challenging in an athlete's sporting career, involving multiple adaptations and potentially having a direct impact on the continuity of their sporting career (Stambulova et al., 2009; Franck & Stambulova, 2020). The transition from junior to senior level represents a critical phase in the development of high-

performance athletes, particularly in athletics, where physical, psychological and social demands intensify significantly. This transition is often described as the most challenging in an athlete's sporting career, involving multiple adaptations and potentially having a direct impact on the continuity of their sporting career (Stambulova et al., 2009; Franck & Stambulova, 2020). In the Portuguese historical context, the formal training structure in athletics only emerged in 1966, decades after the founding of the Portuguese Athletics Federation (1921) and the first regional championships (1922). Although athletics is considered a basic motor development sport – as it integrates fundamental movements such as running, jumping and throwing (Souza et al., 2016) – competitive progression requires more than innate talent. The development of athletic excellence requires sustained investment in technical and psychological training and organisational support (Baker et al., 2019).

The following difficulties are to be considered when analysing the challenges faced by athletes during their transition to the senior level:

Firstly, Increased competitiveness

As athletes progress to the senior level, they encounter opponents who possess a greater degree of experience. This can result in an escalation in the pressure to achieve results (Wylleman & Lavallee, 2004).

Secondly, the psychosocial adaptation phase is characterised by alterations within the social and sporting environment, including the establishment of new relationships with coaches and colleagues. This necessitates an elevated capacity for adaptation, as previously outlined by Pummell, Harwood and Lavallee (2008).

Thirdly, it is imperative to consider the technical, psychological and physical development of the individual. In order to facilitate progression, it is essential to implement continuous improvement in psychological and physical abilities and technical skills. Coaches have been identified as playing a pivotal role in this process (Bruner, Munroe-Chandler & Spink, 2008).

Fourthly, redefining athletic and personal balance.

A multitude of athletes encounter discord between their sporting role and other domains of life, including academic training and entering the job market. It is imperative to emphasise the promotion of a sustainable equilibrium (Stambulova et al., 2017; Henriksen et al., 2020).

The fifth element to be considered is that of support systems. The integration of psychological support, career guidance and mentoring by experienced athletes has been demonstrated to facilitate the transition process and increase retention rates (Schinke, Stambulova, Si & Moore, 2018).

Models such as the Athletic Career Transition Model (Stambulova, 2003) and the Holistic Athletic Career Model (Wylleman et al., 2013) highlight the importance of considering multidimensional factors (psychological, social, educational and cultural) when planning the transition. These models reinforce that successful transition depends not only on athletic performance, but also on institutional support and the psychological literacy of athletes.

On the other hand, early sports development can follow different trajectories. While early specialisation is associated with higher volumes of deliberate practice, recent studies have highlighted the benefits of sports diversification in childhood and adolescence, contributing to the development of transferable skills and the prevention of burnout (Hendry & Hodges, 2019; Côté, Baker & Abernethy, 2007).

Athletics, as a physically and mentally demanding sport, requires an integrated approach to monitoring the junior-senior transition, taking into account the multiple determinants of long-term success.

Rationale The transition from the junior to the senior level is widely recognised as one of the most critical and challenging stages in an athlete's development. It is a period of high vulnerability to dropping out of sport, and has a significant impact on the consolidation of high-performance sporting careers (Stambulova et al., 2009; Franck & Stambulova, 2020). In sports such as athletics, where peak performance is typically attained in the senior phase, successfully navigating this transition is paramount for long-term competitive success (Bennie & O'Connor, 2012). This transition phase integrates physical, psychological, social, academic, and organisational factors that interact dynamically (Wylleman & Rosier, 2016; Henriksen & Stambulova, 2017). For instance, athletes must cope with mounting training and competition demands, alterations to their support systems (e.g. changes in coaching staff, team composition and federative context) and the challenges of balancing their sporting career with academic or professional pursuits (Sorkkila et al., 2020; Gledhill et al., 2017). Recent studies reinforce the idea that failure at this stage is often associated with factors such

as: • lack of adequate psychological preparation (Morris et al., 2022); • poor institutional structuring of transition programmes (Monteiro et al., 2023); • physical overload and injuries (Roberts et al., 2021); • difficulties in reconciling dual careers (Stambulova & Ryba,

2020). While relevant research exists on career transitions in sport, a specific gap in the literature remains regarding athletics, particularly with regard to the factors that positively or negatively influence this transition in different sociocultural and organisational contexts. This scoping review therefore provides an opportunity to systematically map the available evidence, identify emerging patterns and propose guidelines for evidence-based interventions in talent management and sustainable sports development.

METHODS

Strategy of data synthesis In accordance with the PRISMA-ScR (Preferred Reporting Items for Systematic reviews and Meta-Analyses extension

for Scoping Reviews) guidelines, the data synthesis will be conducted using a descriptive and thematic approach aligned with the objectives of this scoping review. The searches for relevant publications will be conducted up to October 2025 with no restrictions on starting date, using the keyword "athletics" combined with terms such as terms as 'talent*', 'specialist*', 'identification', 'career transition' or 'career progression', 'coach', 'junior athletics', 'senior athletics', 'athlete', 'performance', 'youth athletics', 'training', 'process' and 'manager'. Key terms related to athlete development and career transitions include: Athlete, Talent, Career transition, Career progression, Coach, Junior athletics, Senior athletics, Performance, Young athlete, Training. The publications will be reviewed in Zotero to identify those that met the inclusion criteria. Full-text versions of the selected articles will be obtained and analyzed to confirm eligibility. Key information from each study will be extracted using a standardized form, including publication details, study design, participant characteristics, and types of constraints related to the junior-to-senior transition in athletics. The data will then be synthesized descriptively and thematically, identifying recurring patterns and emerging themes. Results will be presented using summary tables and thematic categorizations to highlight the main findings and gaps in the literature.

Eligibility criteria Inclusion criteria

Publications will be included if they met the following criteria: (1) contain relevant information concerning junior to senior transition (e.g., physical, psychological, social or organisational constraints associated with this process); (2) focused on track and field athletes; (3) empirical studies; (4) are written in English or Portuguese Languages.

Exclusion criteria

Publications will be excluded if: (1) are grey literature; (2) do not contain relevant information concerning the transition from junior to senior level will be excluded from this study; (3) not provided insufficient methodological information or focused exclusively on recreational athletes; (4) were written in language others than English or Portuguese.

Concept

The central concept of interest is the transition from junior to senior levels in athletics. This includes the exploration of factors—such as physical, psychological, social, and organisational constraints—that influence or characterise this developmental stage in athletes' careers.

Context

The context is limited to the sport of athletics (track and field) at competitive levels, including national and international settings. Studies must pertain to structured competitive environments rather than recreational or school-based participation.

Types of Participants

Strategy for data synthesis

The review adhered to different sequential stages: (1) identifying the research question; (2) identifying relevant studies; (3) selecting studies based on predefined eligibility criteria; (4) charting the data, and; (5) collating, summarizing, and reporting results.

The search strategy will be the follow:

Population:

Terms related to athletes at various stages of development, including athlete, young athlete, junior athletics, senior athletics, and youth athletics.

(athlet* OR "young athlete*" OR "junior athletic*" OR "senior athletic*" OR "youth athletic*")

AND

Concept:

Terms focusing on talent identification, career development, coaching, and performance, such as talent, specialist, career transition, career progression, coach, training, and performance.

(talent* OR specialist* OR "talent identification" OR "career transition*" OR "career progression" OR "career development" OR "athletic career" OR transition OR development OR perform* OR coach* OR coach* OR "coach qualification" OR training OR "athletic training" OR

AND

Context:

Terms describing the sport environment and factors influencing athlete development, including athletics, track and field, early specialization, training load, gender, injury, competition, dual career, and psychological factors.

(athletics OR "track and field" OR "early specialization" OR "training load" OR infrastructure OR socioeconomic OR gender OR women OR female OR precarious OR barriers OR difficult* OR "work-life balance" OR sacrifice OR compet* OR injur* OR "injury acknowledgement" OR "competitive pressure" OR environmental OR incentives OR "dual career" OR "dual-career" OR academic OR education OR "programs and services" OR "competition level" OR burnout OR school OR self-esteem OR psychological OR cultural OR "language barrier*" OR race OR ethnic).

Source of evidence screening and selection

The study selection process will be carried out in

three main stages: (1) removal of duplicates, (2) title and abstract screening, and (3) full-text screening. Records identified from: Web of Science, Scopus PubMed, and Other sources. Initially, all records identified through database searches will be imported into reference management software (Zotero) for the purpose of duplicate removal. Following this step, two independent reviewers will screen the titles and abstracts of the remaining records to identify studies that may be eligible for inclusion. Records that clearly do not meet the predefined eligibility criteria will be excluded at this stage. Any discrepancies between reviewers will be resolved through discussion; if consensus cannot be reached, a third reviewer will be consulted to make the final determination.

In the third stage, the full texts of the studies retained after initial screening will be retrieved and independently assessed by the same two reviewers based on the established inclusion criteria. The reasons for excluding studies at this stage will be systematically recorded and presented in the final review using a PRISMA-ScR flow diagram.

Throughout all stages of the selection process, a comprehensive log of decisions will be maintained to ensure methodological transparency and reproducibility. The final list of included studies will be jointly reviewed by the reviewers to confirm consistency with the eligibility criteria. When necessary, the authors of primary studies will be contacted to clarify any ambiguous or missing information relevant to the inclusion decision.

Data management The study selection process will be carried out in three main stages: (1) removal of duplicates, (2) title and abstract screening, and (3) full-text screening. Records identified from: Web of Science, Scopus PubMed, and Other sources. Initially, all records identified through database searches will be imported into reference management software (Zotero) for the purpose of duplicate removal. Following this step, two independent reviewers will screen the titles and abstracts of the remaining records to identify studies that may be eligible for inclusion. Records that clearly do not meet the predefined eligibility criteria will be excluded at this stage. Any discrepancies between reviewers will be resolved through discussion; if consensus cannot be reached, a third reviewer will be consulted to make the final determination.

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Language restriction English.

Country(ies) involved Portugal.

Keywords young athlete; junior and senior athletics; talent identification; career development; coaching and performance; sport environment and factors influencing athlete development; athletics, track.

Contributions of each author

Author 1 - Rui Carvalho.

Email: rui.carvalho.70@gmail.com

Author 2 - Hugo Sarmento.

Email: hugo.sarmiento@uc.pt

Author 3 - Duarte Araujo.