STUDENT-ATHLETE MIGRATION: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Purpose. The continuous migration of student-athletes to pursue their educational and sport careers (i.e., dual career) urges the scientific community to investigate this phenomenon. To provide a systematic literature review on migrating student-athletes, this review framed the research questions, identified relevant scientific contributions, assessed the quality of the studies, summarized evidence, and interpreted the findings.

Methods. A systematic review conducted in accordance with preferred reporting items for systematic reviews and meta-analyses guidelines returned 1208 records from 2007 to 2019. After screening for the set criteria, only 12 papers met the final inclusion criteria.

Results. Few eligible papers highlight limited interest in dual career athletic migration. Furthermore, a lack of a dual career friendly environment supporting the combination of educational (university or high school) and high-level sports opportunities in the native country emerged as the main reason for student-athletes migration. In fact, American colleges, offering optimal opportunities to accomplish education and sport, turned out to be the most represented migration sites, which also satisfy the student-athletes’ desire to attain high-quality education, their willingness to live in another country and to practise sports at high levels.

Conclusions. In the context of the pervasive globalization of sport and education, to contribute to the development of the European dual career sports culture, further research is needed to empirically examine the migration phenomenon of European student-athletes in Member States.

Key words: dual career, education, sport, incoming country, push-pull factors, outgoing country

Introduction

A long process is needed to become an elite athlete, starting at young ages and spanning till adulthood, and undergoing increasing volume, frequency, and intensity of training to progress in sports competitions from local to national and international levels. Therefore, to pursue excellence in sports performance, high-level athletes highly commit to training and competition, including the extra time required to transfer from and to the training and competition venues [1]. During their developmental years, athletes face several career transitions at the athletic, psychological, psychosocial, academic/vocational, and financial levels occurring at different time, interacting with each other in various modalities, and having different impacts on the athletes depending on their athletic levels (e.g., sub-elite and elite) and the sports discipline [2, 3]. In particular, youth talented athletes often struggle in combining successfully their sports and academic careers (e.g., dual career), which could enable their holistic development [4, 5] and enhance their transition from sport to the labour market at the end of their competitive years [6, 7].

The European Commission [6] and the European Parliament [8–10] highly recognize the elite athletes as they represent the Member States and have strategic roles in promoting the social and economic growth of sports culture [11–13]. Considering that athletes face numerous challenges in managing their dual careers,
the European Commission published the European Union (EU) guidelines on dual careers of athletes [14] with the aim of encouraging Member States to establish an effective cooperation between sports bodies and educational institutions or business-oriented companies to meet the demands of elite student/worker-athlete. In light of the relevant differences in dual career policies [15], services [16], and recognitions [17] among Member States, unequal treatment of European athletes might occur due to country-specific and cultural-organizational regulations in the field of sport and education. Furthermore, dual career could be even more problematic when athletes relocate (or migrate), in the context of the geographical direction and motivation to pursue their sports and/or academic career [18].

To provide European youth with the education, skills, and creativity needed in a knowledge society, the European community Action Scheme for the Mobility of University Students (ERASMUS) programme strongly supported mobility as the principal tool for building a European identity and citizenship through the area of education for the personal progression of European youth [19]. Since its establishment in 1987, improvements in the ERASMUS programme have concerned the credit assessment and credit recognition process, the preparations of students prior to their departure, and the academic, administrative, and financial support of students whilst abroad [20]. The globalization phenomenon, consolidating the world into a whole space, has been also beneficial for sport [21]. In fact, mobility strongly characterizes sport through extended networks developed to search for talented athletes on a global scale [22], and with both youth and top athletes increasingly considering migration as a relevant opportunity for athletic progression [23]. Thus, a growing number of athletes relocate within a country or migrate to another country, establishing connection networks [24] and/or enhancing their opportunity of sport labour migration [25, 26].

In a globalized world, international education exchanges are considered valuable opportunities to empower youth talented individuals by fostering cultural exchanges of ideas, best practices, challenges, opportunities, mutual understanding, and international goodwill. Since the seminal establishment of the Fulbright Scholar Program at the end of World War II [27], other open and merit-based programmes have been developed [28]. In Europe, the ERASMUS+ programme represents crucial opportunities for exchanges and contamination of the full diversity of Member States [29].

Specifically related to student-athletes in American colleges, 6 typologies of student-athlete migration have been identified [30]: (1) Mercenary, which refers to athletes motivated by the associated economic reward for their talent; (2) Settler, which refers to athletes who moved and remained in a host country for a prolonged period, also beyond the finish of their competitive careers; (3) Returnee, which refers to athletes who move back to their native country at the end of their student-athlete career; (4) Nomadic Cosmopolitan, which refers to athletes motivated by a desire to experience different countries and cultures; (5) Ambitionist, which refers to athletes having a strong desire to achieve a professional sports career by migrating in countries offering a better quality dual career environment; and (6) Exile, which refers to athletes voluntarily migrating for personal (liberty, domestic threats, personal life) or political reasons (Table 1). Although European student mobility [31] and athletic migration [18] are growing fields of research, there is a need to systematize the motivations and challenges encountered by migrating student-athletes in combining their athletic and academic paths.

In the last decades, the European Commission allocated a relevant budget to the ERASMUS+ programme in support of transnational collaborative partnerships related to strategic issues in sport, including dual career [32]. Recently, the collaborative efforts of 5 major Eu-

<table>
<thead>
<tr>
<th>Typology</th>
<th>Motivation</th>
</tr>
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<tbody>
<tr>
<td>Mercenary</td>
<td>Athletes motivated by the associated economic reward for their talent</td>
</tr>
<tr>
<td>Settler</td>
<td>Athletes who moved and remained in a host country for a prolonged period, also beyond the finish of their competitive careers</td>
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<td>Returnee</td>
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<td>Athletes voluntarily migrating for personal (liberty, domestic threats, personal life) or political reasons</td>
</tr>
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</table>

Table 1. Typology of migrant student-athlete [30]
European universities (e.g., the University of Salzburg, Austria; the University Sport Service of Hamburg, Germany; the Lapland University of Applied Sciences, Finland; the University of Cassino and Lazio Meridionale, Italy; and the University of Ljubljana, Slovenia) and the European dual career network (European Athlete as Student, Malta) specifically addressed the topic ‘Athletic Migration: Dual Career and Qualification in Sports’ (AMiD; 590400-EPP-1-2017-1-AT-SPO-SCP). In particular, AMiD aimed to promote and support good governance in sport and higher education of migrating student-athletes by building a network for exchange of best practices and developing their skills and competences, with special reference to the student-athletes’ decision to leave the country (push factors), to look abroad and study in a specific country (pull factors), and to select a specific academic institution on the basis of the push/pull factors [18].

Therefore, within the AMiD project, the purpose of the present systematic analysis of the current scientific literature was to establish and critically appraise the existing relevant scientific contributions on the dual career of migrating student-athletes.

Material and methods

The present review on the dual career of migrating athletes encompassed 5 steps [33, 34]. In particular, step 1 consisted in framing the questions for the review; step 2 involved the identification of relevant works; step 3 implied the assessment of the quality of studies; step 4 incorporated the summary of the evidence; and step 5 concerned the interpretation of the findings. Two researchers belonging to the AMiD consortium were involved independently in all the exclusions or inclusions in the systematic review process (e.g., by the titles, the abstracts, and the full texts). Before the final inclusion or exclusion, a common decision was reached for each study. In the case of any doubt or uncertainty, a third expert was consulted. With the consideration of the first official appearance of the term ‘dual career’ [6], a chronological interval between 2007 and 2019 was set.

Step 1: Framing the questions for the review

This investigation was targeted to the dual career of athletes migrating for sports and/or academic reasons. In this study, athletic migration refers to an athlete’s change of residence from one country to another country and not within one country. The a-priori-specified inclusion criteria to the main topic encompassed the following keywords: dual career OR student-athlete* AND international OR transnational OR relocation* AND migrant* OR migration* AND elite-athlet* OR globalization OR academic*. The asterisks (*) were utilized to pull all derivations of the affiliated root word (i.e., athlet* = athlete, athletes, etc.). To avoid any confounding outcome during the searching strategy, the authors agreed to consider the term ‘migration’ and ‘relocation’ as synonyms. However, scientific contributions focusing on student-athletes relocating within their home country were deemed not eligible for the present study.

Step 2: Identification of relevant works

A comprehensive identification of original manuscripts published in the English language was systematically performed in the Scopus, Institute for Scientific Information Web of Science (WoS), SPORTDiscus (EBSCOhost), and PsycArticles electronic databases. In particular, Scopus is the largest abstract and citation database of peer-reviewed literature in the fields of science, technology, medicine, social sciences, and arts and humanities; WoS is a subscription-based scientific citation indexing service giving access to multiple databases that reference cross-disciplinary research of scientific, technical, and social sciences literature; SPORTDiscus is a comprehensive database focused on sport, kinesiology, and allied science; PsycArticles is the full-text catalogue of American Psychological Association (APA) peer-reviewed journals covering psychology and allied fields. Eligibility was assessed by screening manuscripts firstly by titles, then by abstracts, and finally by full texts reading.

Step 3: Assessment of the quality of studies

For the assessment of the methodological quality of the selected papers, a 4-point Likert scale was applied to 9 appraisal questions: ‘abstract and title,’ ‘introduction and aims,’ ‘method and data,’ ‘sampling,’ ‘data analysis,’ ‘ethics and bias,’ ‘results,’ ‘transferability or generalizability,’ and ‘implications and usefulness’ [35], which were evaluated ‘good’ (4 points) when full and clear information was provided; ‘fair’ (3 points) when information was not complete or clear; ‘poor’ (2 points) when minimal or unclear information was present; or ‘very poor’ (1 point) when there was a lack of relevant information. Thus, total scores (ranging 9–36 points) were interpreted as high quality (30–36 points), medium quality (24–29 points), low quality (9–23 points) [36].
Step 4: Summary of the evidence

Each of the selected studies was assigned a bibliography code and data were extracted on a predefined form encompassing: author(s), publication year, original paper (yes/no), study purpose, study design (questionnaire, focus group, semi-structured interviews, interviews, case study, and a combination of these methods), sample size of migrant student-athletes, student-athletes not relocated, sex representation of migrant student-athletes, competition level, age, educational level, home country, country of migration, period of migration, main goal of migration (sports, academic, or both), main findings, other findings, limitations, future suggestions.

Step 5: Interpretation of the findings

To allow a synthesis of the relevant findings highlighted in the analysed manuscripts, a thematic analysis was deemed relevant for generating inferences, highlighting limitations, and suggesting future research.

Ethical approval

The conducted research is not related to either human or animal use.

Results

Figure 1 shows the PRISMA flow chart of the study selection process. From the initial set of 1208 identified records, 474 duplicates were removed. After title and abstract reading, 575 and 130 records, respectively, were excluded because their content did not correspond with the goal of the present study. The subsequent full text reading of 29 papers excluded 7 additional items because they did not disclose clear and complete data, and 10 papers considering student-athletes relocating within the same country. Thus, a final list of 12 eligible papers was identified for data extraction.

After the publication of the White Paper on Sport [6], the interest toward the study of the dual career of migrating student-athletes started in 2010 and remained limited, and reached its peak (n = 3 studies) in 2011, with a lack of publications in the years of 2012, 2013, 2014, and 2017. The methodological approach to the problem included questionnaires [37–41], semi-structured interviews [42–44], interviews [18, 30, 45], and a combination of these methods (questionnaire and interview) [46]. In general, a wide sample size of migrating athletes was observed, with male athletes (75%) outnumbering their female counterparts (25%), and a lower number of participants included in the studies based on interviews (n range: 6–51) as compared with that of studies based on questionnaires (n range: 13–206).

One study did not specify the sport of the student-athletes [46], one article included only team sports athletes (basketball and soccer [41]), whereas the others encompassed several sports. Student-athletes

![Flow chart of the literature research](image-url)
competing at the national level participated in one study [39], and those competing at the international level contributed to the majority (n = 11) of studies [18, 30, 37, 38, 40–46]. For the academic career, student-athletes enrolled at the high school level participated in 2 studies [41, 43] and the remaining 10 studies involved student-athletes enrolled at the university level.

Regarding the countries of residence of the student-athletes, the studies included multiple countries from different continents (n = 8 [18, 30, 37, 38, 41–44]), from Africa (n = 1 [45]), and from Europe (n = 1 [46]), whereas a single country (i.e., the USA) was included in 2 papers [39, 40]. As for the final destination of migration, the USA was represented in 8 studies [30, 37, 38, 42–46], multiple continents were represented in 2 studies [18, 40], whereas 2 studies reported migration in a single continent (Europe [41] and French Polynesia [39]). Only 8 studies reported the reasons for migration, specifically related to the dual career [18, 40, 42, 46], education [38, 39], living abroad [43], and sport [30].

Table 2 reports all the information regarding the country of origin, destination, aim of the study, sample size, and main findings of the included papers.

Building on the conceptualized student-athlete migration [30], the thematic analysis identified 3 main-level constructs in 8 studies only: (1) Mercenary (education: n = 2, combining academic study and sport: n = 4); (2) Ambitious (sport: n = 1); and (3) Exile or expelled (living abroad: n = 1); whereas 4 studies lacked the information to allow their inclusion in any category (Table 3). Finally, the quality appraisal resulted in 100% of the included studies (Table 4) attaining final scores ranging from 31 to 36 points (i.e., good), substantiating their inclusion in the final analysis.

Discussion

The purpose of this review was to establish and critically appraise the existing relevant scientific contributions on the dual career of migrating student-athletes. The main findings are: (1) a limited scientific interest in dual career migration, although the mobility of students, athletes, and student-athletes nowadays characterizes the globalized world; and (2) a general lack of dual career friendly environments supporting the combination of educational (university or high school) and high-level sports opportunities, which renders American colleges offering optimal opportunities to accomplish education and sport the most represented migration site of student-athletes. The present review highlighted that the desire to attain high-quality education, the willingness to live in another country, and the aspiration to practise sports at high levels were the main reasons for the migration of dual career athletes. Indeed, cross-cultural adjustments to live and play sport in a foreign country could benefit from a good self-efficacy, time management, knowledge of cultural similarities and differences facilitating the relationships with local people, and could predispose migrating student-athletes to approach college with greater self-confidence in their ability to achieve good academic scores in their new context [42]. Although the continuous political and financial EU interest and support in dual career encourage international collaboration, as well as promote the development of initiatives aiming to increase the sharing of best practice, transfer of knowledge, and cooperation between educational institutions and sports clubs for the benefit of student-athletes, many aspects still need to be addressed [47]. Among others, the recent report on the state of play concerning the implementation of the EU guidelines on dual careers of athletes envisages supplementary supra-national actions to facilitate arrangements abroad of the high mobility of athletes, as well as adequate research focused on the international dimension of dual career programmes [47].

For the purpose of the present study, it was deemed appropriate to define international student-athlete mobility as border-crossing to study and play sport in the country of destination [48]. In particular, the search strategy highlighted a paucity of studies on migrant student-athletes, with 12 articles meeting the inclusion criteria mainly based on provisional theories and not validated tools for examining push-pull factors of dual career migration. Therefore, these caveats prevent a sound interpretation of the reported pull factors, which resulted highest for the combination of academic and sport (4 studies), with respect to education (2 studies), sport (1 study), and international experience (1 study). In accordance with the archetypes of methodological fit in field research [49], the present findings position dual career migration at a nascent phase, urging further investigations based on collecting systematic data on migrating student-athletes in their countries of origin as well as their countries of destination to frame the phenomenon of European student-athletes relocating within and beyond Europe. Moreover, this study could present valuable indications to fill in the gap of knowledge in this area.

A conceptual clarification is needed to limit possible methodological flaws and mistakes in data interpretation due to different definitions. Thus, clear definitions should help distinguishing inbound (e.g., within the native country) vs. outbound (e.g., border-
Table 2. A brief summary of the included contributions (in the chronological order), specifying reference, country of origin (outgoing country) and destination (incoming country), aim/focus of the study, sample size, and main findings/conclusions

<table>
<thead>
<tr>
<th>Reference</th>
<th>Outgoing country/continent</th>
<th>Incoming country/continent</th>
<th>Aim/focus of the study</th>
<th>Sample size (females, males)</th>
<th>Main findings/conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popp N, Love AW, Kim S, Hums MA (2010). Cross-cultural adjustments and international collegiate athletes [42]</td>
<td>Australia, Brazil, Canada, Congo, England, Romania, Serbia, Slovakia, Spain</td>
<td>USA</td>
<td>To determine whether the antecedent factors listed by Ridinger and Pastore were indeed the best indicators of successful adjustment to college</td>
<td>13 student-athletes (9 females, 4 males)</td>
<td>The level of successful adjustment was based on 4 antecedent dimensions: (a) personal, (b) interpersonal, (c) perceptual, and (d) cultural distance. Challenges and barriers were classified in relation to individual and group relational factors, the level of expectations, and geographical or cultural gap</td>
</tr>
<tr>
<td>Trendafilova S, Hardin R, Kim S (2010). Satisfaction among international student-athletes who participate in the National Collegiate Athletic Association [37]</td>
<td>Europe, Africa, Asia, Oceania, America</td>
<td>USA</td>
<td>To investigate the level of satisfaction of international student-athletes participating in the National Collegiate Athletic Association and its changes on the basis of selected demographic variables</td>
<td>206 student-athletes (60 females, 146 males)</td>
<td>In general, international student-athletes were satisfied with their overall academic and athletic experience at National Collegiate Athletic Association Division I institutions. The findings revealed high levels of satisfaction in team social contribution and team integration (team cohesion)</td>
</tr>
<tr>
<td>Love A, Kim S (2011). Sport labor migration and collegiate sport in the United States: a typology of migrant athletes [30]</td>
<td>Australia, Brazil, Congo, England, Germany, Romania, Serbia, Slovakia, Spain</td>
<td>USA</td>
<td>To determine the motivations of migrating student-athletes and to associate the USA internationalization research with sports labour migration</td>
<td>12 student-athletes (7 females, 5 males)</td>
<td>The main motivations that drove college athletes’ decisions to migrate to the USA were the combination of high level sport with academic study, and the possibility to explore the USA culture, to improve the financial situation, and to learn English</td>
</tr>
<tr>
<td>Popp N, Pierce D, Hums MA (2011). A comparison of the college selection process for international and domestic student-athletes at NCAA Division I universities [38]</td>
<td>Canada, England, Puerto Rico, Australia, Poland, Germany, Sweden, Barbados, Jamaica, Bermuda, Mexico, New Zealand, Romania, Serbia, Slovenia, Venezuela, Argentina, Belarus, Belgium, Brazil, Colombia, Czech Republic, Dominican Republic, France, India, Israel, Latvia, Netherlands, Norway, Portugal, Spain, Anguilla, Bahamas, Bulgaria, Cameroon, Egypt, Estonia, Georgia, Ghana, Grenada, Hausa, Hungary, Ireland, Japan, Korea, Lithuania, Luxembourg, Mauritius, Nicaragua, Nigeria, Russia, Scotland, Tunisia, Turkey, Ukraine, Zimbabwe</td>
<td>USA</td>
<td>To determine push factors and if there were gender differences in the college selection process when domestic and international student-athletes chose to attend USA universities</td>
<td>192 student-athletes (not applicable)</td>
<td>For international student-athletes, the main motivation was the value of athletic scholarship offered, followed by the personality of head coach. For domestic student-athletes, it was a degree from school leading to good job, followed by overall reputation of the school. Female students were focused on academic factors, while males were focused on athletic factors</td>
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<tr>
<td>Authors</td>
<td>Countries/Regions</td>
<td>Methods</td>
<td>Participants</td>
<td>Findings</td>
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<tr>
<td>Hayden LA, Whitley MA, Cook AL, Dumais A, Silva M, Scherer A (2015).</td>
<td>Panama, England, Germany, China USA</td>
<td>To explore the life skills developed through sport participation at 3 different international high schools, and the influence of coaches on life skill transfer</td>
<td>19 student-athletes (13 females, 6 males)</td>
<td>Student-athletes identified sport as a means of social, emotional, and academic self-improvement. Furthermore, sport was recognized as relevant for the students’ capability to work with others in sport and life.</td>
<td></td>
</tr>
<tr>
<td>Ryba TV, Stambulova NB, Ronkainen NJ, Bundgaard J, Selänne H (2015). Dual career pathways of transnational athletes [18]</td>
<td>Finland, Canada, Bulgaria, Slovakia, Estonia USA, Denmark</td>
<td>To investigate transnationalism in contemporary sporting culture, participatory action research implying collaboration between researchers, practitioners, and athlete-participants</td>
<td>6 student-athletes (not applicable)</td>
<td>Viewed in terms of the push-pull theory, the results indicated that the pull factors for international student-athletes were different than those for domestic student-athletes. Among the foreign contingent, the value of an athletic scholarship was by far the most influential factor, while personality of the head coach was the second.</td>
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<tr>
<td>Barker HM (2016). Global-service learning and student-athletes: a model for enhanced academic inclusion at the University of Washington [39]</td>
<td>USA</td>
<td>To investigate the transformative impact of studying abroad on the academic, social, cultural, and athletic lives of migrating student-athletes</td>
<td>13 student-athletes (6 females, 7 males)</td>
<td>The migrating student-athletes obtained the intercultural competence and global citizenry (global-service learning). Experiential education provided an optimal learning environment for student-athletes excelling at participatory, visual, and kinaesthetic learning.</td>
<td></td>
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<tr>
<td>Richards JK, Holden SL, Pugh SF (2016). Factors that influence collegiate student-athletes to transfer, consider transferring, or not transfer [40]</td>
<td>USA</td>
<td>To assess the reasons and effects that college student-athletes reported for transferring, seriously considered transferring, or not transferring from their original university</td>
<td>37 student-athletes (not applicable)</td>
<td>The results suggest that factors outside of the student-athlete’s control were the most likely to convince the student-athlete to transfer. The top 3 factors, coaching style, playing time, and a change in the coaching staff, were typically the factors that student-athletes perceived as beyond their control.</td>
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<tr>
<td>Sato T, Hodge SR, Eckert K (2018). Experiences of international student-athletes at a historically Black university [44]</td>
<td>South Korea, Philippines, Canada, Brazil, Serbia USA</td>
<td>To analyse the academic, social, and athletic experiences of international student-athletes enrolled at a historically Black university</td>
<td>6 student-athletes (1 female, 5 males)</td>
<td>The student-athletes perceived stereotypical views about race and/or student-athletes as troublesome when experiencing difficulty adjusting to academic and behavioural norms. Thus, international student-athletes need to navigate cultural conflicts of new learning positions of multiple (academic and social) experiences.</td>
<td></td>
</tr>
<tr>
<td>Elbe AM, Hatzigeorgiadis A, Morela E, Ries F, Kouli O, Sanchez X (2018). Acculturation through sport: different contexts different meanings [41]</td>
<td>South America, East Europe Greece, Spain</td>
<td>To investigate the potential role of sports environment factors in the integrative profiles of young male migrating student-athletes</td>
<td>120 student-athletes (120 males)</td>
<td>The study highlighted that contact through sport in appropriate motivational environments might be linked to desired social integrative outcomes in young migrants.</td>
<td></td>
</tr>
<tr>
<td>Ridpath BD, Rudd A, Stokowski S (2019). Perceptions of European athletes that attend American colleges and universities for elite athletic development and higher education access [46]</td>
<td>Europe USA</td>
<td>To understand the perceptions of migrating European student-athletes regarding the American and European sports development systems and models</td>
<td>51 student-athletes (not applicable)</td>
<td>The findings implied that talent development (37.3%), coaching (37.3%), and the level of participation (27.5%) were viewed as the biggest advantages of the European model. Conversely, student-athletes indicated facilities (45.1%), coaching (23.5%), surroundings (23.5%), and the level of participation (19.6%) as the biggest advantages of the USA system.</td>
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</table>
Table 3. Mapping synthesis of the 3-level construct of the selected papers (n = 12), including Ambitious, Exile or expelled, and Mercenary, their purpose for migration, and references

<table>
<thead>
<tr>
<th>Main level constructs</th>
<th>Purpose for relocation</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambitious</td>
<td>Sport</td>
<td>[30]</td>
</tr>
<tr>
<td>Exile or expelled</td>
<td>Living abroad</td>
<td>[43]</td>
</tr>
<tr>
<td>Mercenary</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Combining academic study and sport</td>
<td>[38, 39], [18, 40, 42, 46]</td>
</tr>
<tr>
<td>Not applicable</td>
<td></td>
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</table>

Table 4. Quality assessment of the selected papers

<table>
<thead>
<tr>
<th>Reference</th>
<th>Abstract and title (points)</th>
<th>Introduction and aims (points)</th>
<th>Method and data (points)</th>
<th>Sampling (points)</th>
<th>Data analysis (points)</th>
<th>Ethics and bias (points)</th>
<th>Results (points)</th>
<th>Transferability or generalizability (points)</th>
<th>Implications and usefulness (points)</th>
<th>Total score (points)</th>
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<tbody>
<tr>
<td>[42]</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Fair (3)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Fair (3)</td>
<td>Good (4)</td>
<td>(34)</td>
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<td>[37]</td>
<td>Fair (3)</td>
<td>Fair (3)</td>
<td>Good (4)</td>
<td>Good (4)</td>
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<td>Good (4)</td>
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<td>Good (4)</td>
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<td>[45]</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Fair (3)</td>
<td>Good (4)</td>
<td>Good (4)</td>
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<td>[30]</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Fair (3)</td>
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<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>Good (4)</td>
<td>(35)</td>
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<td>[38]</td>
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<td>Good (4)</td>
<td>(36)</td>
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crossing) mobility, short-term (e.g., from a few months to a year) vs. whole study programme mobility (e.g., 4 years), vertical (e.g., superior in quality) vs. horizontal (e.g., equal in quality) mobility; and mobility for the purpose of the combination of study and sport vs. for study-related and sport-related purposes.

In Europe, the short-term border-crossing mobility within the ERASMUS programme is considered a principal tool for building the personal progression of European youth [19], leading to remarkable development of international skills as well as of international career opportunities [48]. To stimulate such a European educational mobility, international partnerships between institutions, departments, and programmes have been developed to support the growing migration of students and scholars [19]. However, the ERASMUS mobility programme supports European students abroad only for one semester or one academic year, and this temporary migration might conflict with the sports commitment or competition schedules of the athletes. In fact, being mainly organized at the club level and being separate and distinct from the European educational model, the European sports system often lacks formal relationships with the educational systems [47] and schedules its competitions regardless of the academic agenda. Although the literature reports that student-athletes are more likely to achieve greater educational and labour market success as compared with their non-athlete counterparts [50], European talented athletes are challenged to maintain their sports commitments or to prioritize education to prepare for future job opportunities [16], and few of them could benefit from educational study abroad in absence of exchange agreements between Member States for transnational athletes. Furthermore, the lack of clear criteria for the status of European student-athletes and national approaches to dual career allow Member States to offer dual career services only to their national student-athletes [17]. In the context of the pervasive globalization of sport and education, further research is
needed to empirically examine the migration phenomenon of student-athletes and to investigate how their flow around Europe can contribute to the development of a European dual career sports culture. Furthermore, the ERASMUS observatory could start collecting information regarding the sport participation (e.g., type of sport, competitive level, sports commitment) of the beneficiaries of its grants, which could allow large-scale dual career investigations.

In presenting a unique support for athletes willing to participate at an elite sports level while receiving a university degree, the USA National Collegiate Athletic Association (NCAA) model is considered with great interest by European athletes who might not have similar opportunities in their home countries [46]. In fact, the American sport, mainly organized at the educational level, offers athletic scholarships, provides living and sports facilities, highly qualified coaching and academic teaching, and ensures academic flexibility, distance learning, support resources, and counselling, independently of the athlete’s nationality [30, 51]. Therefore, international student-athletes enrol at USA universities for a whole study programme of 4 years not only to complete a bachelor degree, substantiating their acquired competencies, but also to have a 4-year sports experience. Coherently, 67% of the eligible articles presented USA as the incoming country of student-athletes, thus implying that student-athletes are attracted by long-term border-crossing mobility in presence of well structured dual career opportunities [46]. Actually, the well structured dual career opportunities at American universities could be perceived as vertical mobility when student-athletes migrate expecting to improve their sports or education opportunities, as well as to refine their English language skills for the future transition in the labour market at the end of their sports career [30]. However, this study highlighted the American hegemony in attracting migrating student-athletes through a well-structured dual career system, which could stimulate European efforts in developing transnational dual career cooperation between Member States. In general, migrating student-athletes expect this vertical mobility upon the promises of the athletic programme of the universities, which ensure them counselling, social inclusion, and advice upon arrival. In some cases, this vertical migration is not confirmed when student-athletes report an excessive competitiveness of the NCAA colleges and the presence of authoritarian coaches holding no coaching certificates, being focused exclusively on the competition outcomes, ready to cut off players from the team if they do not perform, and not caring of their athletes’ progress in college [46]. Thus, moving from their incoming country with high expectations, student-athletes experience a decrease in their motivations [42].

In the context of several excellences at the educational and sports levels and a strong vocation towards cooperation between inter-university study programmes, degrees, transfer of knowledge [52], and research [53] within and beyond Europe, student-athletes could be interested in intra-European mobility for developing their education and sports career if provided adequate dual career support. As the globalized sport could greatly contribute to the process of cultural and psychological change that follows intercultural contact [41], migrating student-athletes should enter the agenda of European educational institutes and sports bodies. Thus, to implement European dual career for migrating student-athletes, the ERASMUS programme should consider the opportunity to extend the duration of its support beyond a 1-year period for this special population. Furthermore, university courses offered in English could constitute an additional aspect favouring student-athlete intra-European migration. Finally, the European Commission [47] provided guidelines on the minimum skills and competences required for coaches, who are urged to be aware of the principles and importance of the athlete’s dual career and to be prepared to act as a supporting mentor.

Another relevant issue to be considered is the lack of a validated instrument to investigate the push-pull factors for student-athletes’ migration. Although a plethora of studies have applied a specific tool to investigate the motivation of American [54], Brazilian [55, 56], European [57–59], Korean [60], and United Arab Emirates [61] student-athletes towards their dual career, sport, and academic careers, there is a need of conceptual and quantitative knowledge on the reasons for dual career migration, which could clarify push-pull factors and challenges, thus contributing to this line of research. In particular, future studies are necessary to understand whether migrating student-athletes encounter difficulties in their transition to the labour market or whether they can profit from their international experience as migrating student-athletes to increase their job opportunities as compared with their non-migrating counterparts.

The main limitation of this systematic literature review was the deliberate inclusion of papers related to migrating student-athletes published in English in peer-reviewed journals. This approach intended to provide a sound evidence-based development of guidelines built on a solid theoretical background of the migrating student-athletes’ perceived needs and challenges.
Nevertheless, to contribute to this academic field, future research may investigate non-English-language literature and the complexity and variety of sporting and educational contexts of former migrating student-athletes and the subsequent impact of their migration experience as perceived at the end of their sporting career.

Despite its limitation, the present review could provide important information to stimulate future research on the dynamic and evolving phenomenon of student-athletes’ migration as well as future European actions supporting the mobility of talented and elite athletes pursuing dual career in European countries.

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Conflict of interest
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References
HUMAN MOVEMENT
F. Palumbo, A. Fusco, C. Cortis, L. Capranica, Student-athlete migration: a systematic literature review


32. Sindermann D, Oechsle S, Bublitz S. Erasmus plus/node_en.


