Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Parents about parenting dual career athletes: A systematic literature review.

Antonio Tessitore\textsuperscript{a,}*, Laura Capranica\textsuperscript{a,}b, Caterina Pesc\textsuperscript{e}, Nadine De Bois\textsuperscript{c}, Masar Gjaka\textsuperscript{a}, Giles Warrington\textsuperscript{d,e}, Ciaran MacDonncha\textsuperscript{d,e}, Mojca Doupona\textsuperscript{a,f}

\textsuperscript{a} University of Rome “Foro Italico”, Department of Movement, Human and Health Sciences, Rome, Italy
\textsuperscript{b} European Athlete as Student (EAS) Network, Ghaxaq, Malta
\textsuperscript{c} National Institute of Sport, Expertise and Performance (INSEP), Paris, France
\textsuperscript{d} University of Limerick, Department of Physical Education & Sport, Limerick, Ireland
\textsuperscript{e} University of Limerick, Health Research Institute, Limerick, Ireland
\textsuperscript{f} University of Ljubljana, Department of Sport Sociology, Faculty of Sport, Ljubljana, Slovenia

\textbf{ARTICLE INFO}

**Keywords:**
parenting Student-athletes  
Student-athletes  
support Entourage  
sport and education  
European dual career guidelines

\textbf{ABSTRACT}

\textbf{Objectives:} To establish the scientific literature on the parents’ view as supporters of dual career (DC) athletes, and to highlight practical implications for the development of education programmes to empower parents in this role.

\textbf{Method:} The systematic literature review included four electronic databases, from which 438 articles published in English between 1999 and 2019 were retrieved.

\textbf{Results:} A total of 14 studies achieved the eligibility criteria (i.e., focus on DC, involving parents as participants) for inclusion. Results show that the 14 studies included in the review were characterised by sample sizes of 15 to 50 parents of individual and/or team sports athletes, involving data collection based on interviews, semi-structured interviews, focus groups, questionnaires, and surveys. A thematic synthesis highlighted a two primary constructs: the individual level and the inter-individual level, respectively. The individual level comprised two main themes: Approach to both Sport and Education, and Stressors and Coping, which included five aspects of parenting. The inter-individual level presented three themes: Relationship with the Athlete; Relationship with the Sport Environment and Relationship with the Academic Environment.

\textbf{Conclusions:} Findings highlighted a relevant parental role in supporting DC athletes and partial information on parental support strategies. In conclusions, the limited sample size and typology of sports, and the partial representativeness of countries have impacted the global application of the main findings. Furthermore, the need of an educational programme for parents and the need of regular parents-athlete-teacher/coach engagement were considered crucial to facilitate successful parental interventions at academic and/or sports levels and to limit the potential negative effects of DC parenting.

Athletes have the right to combine their sport and educational/vocational careers (e.g., “dual-career”, DC) to guarantee their holistic development (Capranica & Millard-Stafford, 2011; Stambulova & Wylleman, 2015) and to enhance their transition from sport to the labour market at the end of their competitive years (European Commission, 2007; International Olympic Committee, 2014). In practice, DC differs according to contexts and cultures (Stambulova & Ryba, 2013, 2014). Whilst in some countries (e.g., Australia, Canada, New Zealand, Qatar, United States) student-athletes are well recognized and considered eligible under specific rules for a variety of DC programmes (Australian Institute of Sport, 2020; Aspire Institute, 2020; High Performance Sport New Zealand, 2020; National Collegiate Athletic Association, 2020; US SPORTS, 2020), African, Asian, European, and South American countries present a wide range of fragmented DC policies and interventions in support of the athlete’s holistic development, ranging from a laissez-faire approach to established national policies (Amsterdam...
In Europe, by recognizing that athletes play a significant societal role (European Commission, 2007) and that sport has a relevant impact on the European economy (Kleissner & Grohall, 2015), the European Parliament (2015, 2017) and the European Commission (2012, 2014, 2019) encourage national DC policies, support the cooperation between different DC stakeholders, promote the exchange of DC best practices, and encourage the implementation of DC services at sport and education levels (Amsterdam University of Applied Sciences et al., 2016; Capranica & Guidotti, 2016). To describe the relationship between sport and academic (or work) careers three main pathways have been proposed (Pallares et al., 2011). First, a “linear path”, with athletes focusing only on their sport career and not considering that only very few of them reach a professional status, which allows a capitalization for the life course. Second, a “convergent path”, with athletes prioritizing their sport career and reducing their emphasis on academic endeavours or work commitments, which does not promote a balanced comprehensive approach and may preclude them from achieving their full potential from a holistic development perspective. Third, a “parallel path”, where athletes place equal importance to their sporting and academic careers, which is the actual European DC model to realize their full potential as European citizens.

The European financing programmes in the area of DC provided significant opportunities for scholarly endeavours to address several aspects of European student-athletes (European Commission, 2019), which determined an increased number of academic studies recently summarized in two reviews (Guidotti et al., 2015; Stambulova et al., 2016). Several authors have proposed a holistic approach encompassing various stages and transitions occurring at sport, educational/working, and psychosocial levels, with the aim of enhancing positive adjustments, to prevent disengagement/drop out experiences, and to avoid psycho-emotional, social and physical consequences when retirement from sport occurs (Comeaux & Harrison, 2011; Coté et al., 2014; Park et al., 2013; Stambulova et al., 2009, 2020; Torregrosa et al., 2004; Wylleman et al., 2004). In particular, a growing trend in recent research has been placed on the athletes’ supportive entourage, including coaches, teachers, parents, peers, and support staff, who are urged to anticipate and detect DC athletes’ needs, and to help athletes progress towards autonomy (Li & Sum, 2017; Stambulova & Wylleman, 2019). Although the athletes are principally responsible for their DC pathway, a supportive entourage is needed to optimize the organization of their academic and sporting activities (Amsterdam University of Applied Sciences et al., 2016). In this context, one of the main goals of the European policy on DC is to promote and prioritise a structured systematic approach to DC. This is based on a strong scientific underpinning, with clear systematic DC structures and partnership approaches, which include the education of all the DC stakeholders involved (Stambulova & Wylleman, 2019). Therefore, the tendency for DC programmes that are primarily ad hoc, piecemeal, and relying heavily on the goodwill of persons in key organizational or institutional positions, to mention needs and sport level could be overcome. Recently, a meta-synthesis (Li & Sum, 2017) and a survey (Condello et al., 2019) on the elite athletes’ view of their DC paths highlighted that parents play a major role as DC supporters. In particular, an athlete-centric perspective of a systematic approach to DC development of elite athletes proposed a three-level construct (e.g., individual, interpersonal, and external), in which parents and their attitudes towards DC are considered relevant social agents (Guidotti et al., 2015; Li & Sum, 2017).

Parents play a pivotal role in assisting athletes during and after their sporting career as supporters, social agents, and sponsors (Li & Sum, 2017; Harwood & Knight, 2015), also offering perspectives towards education and in assisting during career transitions (Elliott et al., 2018). Furthermore, parents also provide logistical and financial support, especially when sport clubs or federations do not offer funds/resources (e.g., equipment, training camp, and travel costs) necessary for preparation to competition at the highest level (Geraniosova & Rönkainen, 2015). Despite two literature reviews (Knight et al., 2017; Lindstrom Bremer, 2012), a position paper (Harwood & Knight, 2015), and a special issue of the Sport, Exercise, and Performance Psychology (Harwood & Knight, 2016) substantiating a growing interest in parental involvement in sport, these contributions do not necessarily consider the crucial role parents play as DC supporters. In fact, the scholarly understanding of parental experiences of DC athletes in varying contexts, sports, and cultures remains very limited. Of the information available, some authors have claimed that successful athletic talent development environments should include parents supporting the athletes’ sporting goals (Henriksen & Stambulova, 2017), and envisaged structural interventions to enhance the communication between sport staff and parents (Stambulova et al., 2020). Therefore, there is a need to consider the crucial role of parents as DC supporters.

It is important to appreciate that parents are not always fully equipped to provide optimal levels of support for their talented athletic progeny. Several studies have reported that parents might perceive themselves unprepared to take the main responsibility of supporting the sports and education choices of their children, especially if they have no specific knowledge on DC (Elliott et al., 2018; Knight & Harwood, 2015, Thrower et al., 2016, 2017, 2019; Wylleman et al., 2007). Thus, the European Commission supported the Collaborative Partnership “Education Model for Parents of Athletes In Academics (EMPATIA) - project number 590437-EPP-1-2017-1-SI-SPO-SCP” aimed to develop an online multilingual programme to support parenting DC athletes based on a solid theoretical background and scientific underpinning (Capranica et al., 2018). Therefore, the main purpose of the present systematic analysis of the current scientific literature was to establish and critically appraise the existing relevant scientific contributions on the parents’ view as supporters of DC athletes, and to highlight practical implications for the development of education programmes to empower parents in this role.

1. Method

In agreement with the aim of the EMPATIA project (Capranica et al., 2018), the research question for this study was framed on the role of parental support for DC of student-athletes. Thus, the a-priori-specified eligibility criteria encompassed: a) focus on DC (yes/no); b) direct involvement of parents as participants in the study; and c) main findings being on parenting athletes as students. In line with the literature (Moher et al., 2010), the design consisted of: 1) Search strategy and identification of relevant papers; 2) Content appraisal of selected papers; 3) Assessment of the quality of studies; 4) Summary the evidence; and 5) Interpretation of the findings). The identification of relevant papers was based on a search strategy limited to peer-review manuscripts published in English between 1999 and 2019.

2. Search strategy and identification of relevant papers

The following combinations of keywords and Boolean operators were formulated through a consultation with partners of the EMPATIA consortium: 1) “student-athlete” AND “dual-career” OR “transitional career” AND “Parent” OR “Famil”; 2) “student-athlete” OR “Elite-athlete” AND “Support” OR “Influence” OR “Pressure” AND “Parent” OR “Famil”; 3) “Interaction between parents and coaches” “Parental Support” AND “Athletes” AND “Dual-career”. The asterisks (*) were utilized to pull all derivations of the affiliated root word (i.e., Famil* = family, families, familiar, etc.).
To provide a detailed procedure for planning and conducting an accountable and replicable identification of relevant scientific contributions, four electronic databases were used: “Web of Science” (previously known as Web of Knowledge), which is an online subscription-based scientific citation indexing service that gives access to multiple databases that reference cross-disciplinary research, with a large index of scientific, technical and social sciences literature; “Scopus”, which is the largest abstract and citation database of peer-reviewed literature covering a comprehensive overview of the research output in the fields of science, technology, medicine, social sciences, and arts and humanities; “SPORTDiscus”, which is a comprehensive database with a robust coverage of sport, kinesiology and more; “Education Resources Information Center (ERIC)”, which is the world’s most widely used index to educational-related literature. Furthermore, an internet search using the “Google Scholar” search engine (www.googlescholar.com) was conducted to locate recognized international and national publications directly addressed to the topic under consideration. Finally, to allow the identification of relevant papers not found during the electronic search, the snowballing technique was applied. From the achieved preliminary list of potential relevant contributions, duplicates were then eliminated. Two researchers belonging to the EMPATIA consortium independently screened relevant papers by the titles and if necessary, the abstracts, and the full texts. Before the final inclusion or exclusion, a common decision was reached for each study. Figure 1 presents the “PRISMA” flow chart of the study selection process.

3. Content appraisal of selected papers

The included papers were sorted chronologically from 1999 to 2018, with an alphabetical order of the first author (and of the second author, when necessary), and bibliographical codes were assigned (Table 2). Two independent reviewers used a predefined data extraction form, which considered the following parameters: a) year of publication; b) data collection methods; (e.g., questionnaires, semi-structured interviews, interviews, survey, focus groups); c) sample size and characteristics of parents (e.g., gender, continent and country); d) characteristics of athletes (e.g., age and type of sport); e) parenting DC athletes outcome details; f) DC main findings (Tables 1 and 2). A thematic analysis was performed to provide a synthetic overview of major findings deemed relevant for generating inferences on parenting DC athletes. An iterative process involving discussions among the research team to reach an agreement on the identification of themes conveying important aspects about the research topic under investigation allowed the categorization of each paper.

4. Quality appraisal of selected papers

Two authors independently performed the quality appraisal of the selected papers by means of the assessment tools for qualitative studies reported in Appendix D of Hawker et al. (2002) and in Appendix 5 of Lorenc et al. (2014). Operationally, nine appraisal questions (i.e., “Abstract and title”, “Introduction and aims”, “Method and data”, “Sampling”, “Data analysis”, “Ethics and bias”, “Results”, “Transferability or generalizability” and “Implications and usefulness”) were evaluated using a 4 point (pt.) Likert scale comprising of: “good” (4 pt.) when full and clear information was provided; “fair” (3 pt.) when information was not complete or clear; “poor” (2 pt.) when minimal or unclear information was present; or “very poor” (1 pt.) when there was a lack of relevant information (Table 3). Thus, total scores ranging from 9 pt to 36 pt were interpreted as high quality (30–36 pt), medium quality (24–29 pt), low quality (9–23 pt), respectively (Lorenc et al., 2014).

5. Summary of findings

The identification process (Figure 1) resulted in an initial database of 438 articles. After a careful removal of duplicates, the screening of the remaining 317 articles resulted in, 25 articles fulfilling the first main criterion of involving parents as participants. Following the further screening relative to the focus on DC (not only on sport career), 14 articles were retained for the final analysis and critical evaluation. Tables 1 and 2 report the characteristics of the final 14 selected scientific studies, whereas in the text the square brackets include the bibliographical codes of the selected papers. Data collection encompassed interviews [codes: 1, 2, 7, 11,14], semi-structured interviews...
Table 1
A Brief Summary of the Included Contributions (in a Chronological Order), Including Bibliographic Code and Reference, Country of the Participating Parents, Aim/Focus of the Study, Sample Size, and Main Findings/Conclusions.

| Bibliography Code and Reference | Country | Aim/Focus of the Study | Sample Size (# fathers, # mothers) | Main Findings/Conclusions |
|---------------------------------|---------|------------------------|------------------------------------|---------------------------|
| 1 Côté (1999)                   | Canada  | Patterns in the dynamics of families of talented athletes through their development in sport. | 6 parents (3 fathers, 3 mothers) | Different themes characterize each phase of a child’s participation in sport and important changes occur at family levels. The role of parents changes from a leadership role (sampling years) to a follower/supporter one (investment years). The role of family is a complex phenomenon because of the diversity of family context. Parents emphasize both school and sport achievement. | |
| 2 Wolfenden and Holt (2005)     | UK (England) | Players’, coaches’ and parents’ perceptions of talent development in elite junior tennis during the specializing years. | 4 parents (1 father, 3 mothers) | Complex interactions between players, parents, and coaches associated with involvement in elite junior tennis encompass: 1) Emotional Support; 2) Tangible Support; 3) Informational Support; 4) Sacrifices; 5) Pressure; and 6) Relationship with Coaches. Parents fulfilled an important role in providing financial and emotional support and having expectations for their child’s achievement. Family time and social lives are scarified due to tennis. A multifaceted social setting involves complex relationships between players, parents, and coaches, especially when parents became over-involved in competitive settings. | |
| 3 Harwood and Knight (2009)     | UK      | Perceived stressors experienced by British tennis-parents and empathic understanding of key participants in the youth sport development process. | 123 parents (41 fathers, 74 mothers, 4 sets of joint responses) | Core themes of parental stressor included: 1) the processes of competition; 2) the behavior and responsibilities of coaches; 3) financial and time demands placed upon the family; 4) sibling inequalities and resentment; 5) inefficiencies and inequalities attributed to tennis organizations; and 6) developmental concerns related to educational and future tennis transitions. A need to educate and support parents through the motivational and emotional processes of competition, the parental role in financial, social, and educational support emerged. | |
| 4 Harwood et al. (2010)         | UK (England) | Experiences of academy football parents across the specializing stage and stressors associated with younger and older players. | 41 parents (25 fathers, 16 mothers) | Parental stressor encompassed: 1) academy processes and quality of communication; 2) match-related factors; 3) sport-family role conflict; and 4) school support and education issues. Parents identified uncertainty of their son’s retention in the academy and quality of communication with staff being somewhat excluded and treated with a lack of empathy. | |
| 5 Tamminen and Holt (2012)      | Canada  | Development of a grounded theory of the ways adolescent athletes cope in sport and the related parents’ and coaches’ role. | 10 parents (4 fathers, 6 mothers) | Parents use specific strategies to help athletes learning about coping, including questioning and reminding, providing perspective, sharing experiences, dosing stress experiences, initiating informal conversations, creating learning opportunities, and direct instruction. | |
| 6 Domingues and Gonçalves (2013)| Portugal| Parental beliefs, expectations, behaviours and social support in youth sport. | 11 parents (not specified) | Parents tend to influence the child’s relation to and persistence in sport. Parents’ involvement and behaviours vary during the early, middle, and elite years of the athletic talent development. Parents’ educational beliefs are reflected in some lifelong learning social skills found in sport. | |
| 7 Holl and Burnett (2014)       | South Africa | Relationships between elite athletes and their significant others during their sporting life | 5 parents (not specified) | Parental guidance and support influence the initial children’s engagement, dedication, and success in sport. Mother-daughter and father-son relationships present differential influences, with mother generally providing emotional support and father supporting coaching and financial resources. | |
| 8 Park and Kim (2014)           | South Korea | Experiences of parents of elite tennis players and the athletes’ perceptions of their parents’ influence and support. | 15 (4 fathers and 11 mothers) | Parents influence the initiation of the athletes’ sporting careers and the need for education programmes for parents and coaches on effective support for young athletes emerged. Parents and athletes appreciate the communications with each other, but they report some difficulties in communicating with the other stakeholders. To achieve continuity and reinforcement of a Developing Champions programme, involvement of parents and coaches is needed. Internet and social media could promote key self-regulation skills such as self-monitoring and goal setting or to prompt discussion and experiences of dealing with stress or anxiety. Coach-parent-player meetings could allow them to share the programme’s approach and to provide players and parents with feedback on players’ academic, personal and sport specific development. | |
| 9 Hardcastle, Tye Glassy & Hagger (2015) | Australia | Development and evaluation of future training programs to maximize adaptive life skills in young high-performance athletes. | 8 parents (not specified) | Parents use specific strategies to help athletes learning about coping, including questioning and reminding, providing perspective, sharing experiences, dosing stress experiences, initiating informal conversations, creating learning opportunities, and direct instruction. | |
| 10 O’Neill et al. (2015)        | Australia | Identification of gaps between parents and student-athletes’ views to maximize the effectiveness of parental support. | 10 parents (1 fathers, 9 mothers) | Parents are well motivated to provide emotional and tangible support for their talented child but rarely receive any formal training on how to help their child’s (continued on next page) |
Table 1 (continued)

| Bibliography Code and Reference | Country | Aim/Focus of the Study | Sample Size (# fathers, # mothers) | Main Findings/Conclusions |
|---------------------------------|---------|------------------------|------------------------------------|---------------------------|
| 11 Kristiansen and Houlihan (2017) | Norway | The role of private sports schools in the development of elite athletes and the financial support of parents. | 8 parents (4 fathers, 3 mothers, 1 not specified) | Parents of young athletes attending sports schools tend to transfer responsibility for their child’s athletic and educational development to the schools, which offer a stable, technical, high-quality, systematic and in-house sport and education resources for the youth student-athlete. |
| 12 Sorkkila et al. (2017) | Finland | Burnout symptoms and profiles of student-athletes in relation to the athletes’ and parents’ success expectations. | 448 parents (188 fathers, 260 mothers) | Different mothers’ and fathers’ parental expectations, guidance and support likely influence the athlete’s well-functioning and/or sport/school burnouts. |
| 13 Aunola et al. (2018) | Finland | The role of mothers’ and fathers’ parenting behaviors on the symptoms of school and sport burnout in adolescent athletes. | 449 parents (191 fathers, 258 mothers) | Parents play a role in adolescent athletes’ symptoms of school and sport burnout during the transition to upper secondary school. Although parental affection and support seem to protect athletes from the symptoms, this protective association is evident only if not combined with high parental psychological control. Interventions aiming at increasing parental knowledge of beneficial and harmful ways to be involved in athletes’ lives is needed. |
| 14 Knight et al. (2018) | UK | The role and factors of the social support network in facilitating a dual career. | 13 (7 fathers, 6 mothers) | Athletes recognize the support from their parents, who are perceived to play a critical role in creating expectation of continuing education and in helping them to catch up on work. It is envisaged that parents, coaches, teachers, and organizational support staff have a coherent ‘contextual intelligence’ and a cognitive awareness of the stressors faced by the elite student-athlete. |

Table 2

Mapping Synthesis of the Selected Papers (n = 14).

| Characteristics of the studies | Methodology | Bibliography Code |
|-------------------------------|-------------|--------------------|
| Data collection methods       | Questionnaires | 11, 13             |
|                               | Semi-structured interviews | 5, 6, 14          |
|                               | Surveys      | 1, 2, 7, 9, 12, 13 |
|                               | Focus groups | 3, 4, 8, 10        |
| Continent                     | North America | 1, 5               |
|                               | Europe       | 2, 3, 4, 6, 11, 12, 13, 14 |
|                               | Oceania      | 9, 10              |
|                               | Africa       | 7                  |
|                               | Asia         | 8                  |
| Parents’ Sample              | <15 parents | 1, 2, 5, 6, 7, 8, 9, 10, 12, 14 |
|                               | 16-50 parents | 4                 |
|                               | >50 parents | 3, 11, 13          |
| Type of sport of student-athletes | Individual and Team Sports | 1, 5, 7, 9, 10, 11, 12, 13, 14 |
|                               | Only Team Sports | 4, 6              |
|                               | Racquet Sports | 2, 3, 8          |
| Age of student-athletes      | U12         | 3, 4               |
|                               | U14         | 3, 4, 6, 8, 10     |
|                               | U16         | 2, 3, 4, 5, 6, 10, 11, 13, 14 |
|                               | U19         | 3, 10, 14          |
|                               | Not available | 7, 9, 12          |

[ codes: 5, 6, 10], focus groups [ code: 4], focus groups and semi-structured interviews [ codes: 8, 9], questionnaires [ codes: 12, 13], and a survey with requirements to articulate in a written form [ code: 3], respectively. Regarding the countries of the data collection, the majority of papers (n = 8) included European countries (United Kingdom: [ codes: 2, 3, 4, 14]; Finland: [ codes: 12, 13]; Norway: [ code: 11]; and Portugal: [ code: 6]). Oceania (Australia: [ codes: 9, 10] and Northern America (Canada: [ codes: 1, 5]) were represented in two studies, whilst Africa (South Africa: [ code: 7]), and Asia (South Korea: [ code: 8]) in one study, respectively. In terms of sport classifications of the athletes represented of the selected articles, nine studies [ codes: 1, 5, 7, 9, 10, 11, 12, 13, 14] included parents of athletes competing in different sports, three studies [ codes: 2, 3, 8] encompassed parents of tennis players, and two studies [ codes: 4, 6] involved parents of soccer players. In considering the number of parents participating in the investigations, ten studies involved <15 parents [ codes: 1, 2, 5, 6, 7, 8, 9, 10, 11, 14], one study [ code: 4] between 15 and 50 parents, and three studies [ codes: 3, 12, 13] >50 parents, respectively. With the exception of three studies [ codes: 4, 11, 14], a prevalence of mothers (around 65%) compared to fathers (around 35%) emerged. Regarding the age of the athletes as students, U14 were considered in seven studies [ codes: 2, 3, 4, 5, 6, 8, 9], U16 in ten studies [ codes: 2, 3, 4, 5, 6, 9, 10, 12, 13, 14], U19 in six studies [ codes: 3, 5, 9, 10, 13, 14], whereas two studies did not mention the specific age of the athletes included [ codes: 7, 11]. The quality appraisal resulted in 93% (13 out of 14 studies) attaining final scores ranging from 32 to 36 points (i.e., good), with only one study (7%) attaining a final score of 25 points (i.e., medium). Thus, none of the studies was excluded from the final analysis and critical appraisal.

6. Qualitative analysis of parental experiences

According to the literature (Guidotti et al., 2015; Li & Sum, 2017), the thematic analysis identified two main constructs: the individual level and the inter-individual level, respectively. The individual level comprised two main themes: 1) Approach to both Sport and Education, encompassing aspects pertaining the parent’s emphasis and perspectives on sport and/or academic achievements, as well as parents entrusting coaches, teachers or sports schools for the child’s holistic development through a DC programme; and 2) Stressors and Coping, including aspects related to the parent’s relationships with family members and other parents. The inter-individual level presented three themes: 1) Relationship with the Athlete, incorporating the parental support to the student-athletes’ emotional, lifestyle, logistics, and financial needs; 2)
expensive, and forever-changing, with relevant family sacrifices in parents and guardians of athletes as students (Capranica et al., 2018). In light of the potential cultural differences of the co-authors, the present systematic review summarizes the current status of the parents’ perspective of their role in supporting their DC progeny.

Despite the important parental role in supporting DC athletes, it emerged that 14 contributions over a 20-year period reflect the dearth of scientific literature in this area, indicating that research in this field is still in its infancy phase (Edmondson & McManus, 2007). Furthermore, the selected studies provided data on a limited number of parents, a restricted variation in the typology of sports, and a partial representativeness of countries, which may limit the global application of the findings of the current literature (Knight et al., 2017). The main findings of the present study indicate a multi-faceted nature of parental experiences, mirroring the different national educational, sporting, and DC structure and policies. Despite the challenges of developing a consistent parenting model suitable for DC athletes to fit every situation and circumstance, the systematic approach of this work and its thematic analysis represent a starting point for understanding the parenting phenomenon of DC athletes and contribute to the development of a sound theoretical construct for further investigations on parenting student-athletes across sports and countries.

In light of the potential cultural differences of the co-authors, the consensus method was deemed especially important to maintain the collegiality of decisions on the labelling of the themes and aspects of parenting (Tastle & Wierman, 2007). Based on the literature (Guidotti et al., 2015; Li & Sum, 2017), a synthesized two-level construct of the present systematic review emerged, encompassing individual (e.g., parental beliefs and styles, and psychological and emotional stressors and coping) and interpersonal (e.g., support to the athlete’s needs, and interactions/relationships with the staff of the sports and academic environments).

### Table 3
Mapping Synthesis of the Two-Level Construct of the Selected Papers (N = 14), Including Individual and Interpersonal Levels, Their Relative Themes, Factors, and Bibliographic Codes.

| Levels                      | Themes                                      | Factors                                                                 | Bibliographical Codes |
|-----------------------------|---------------------------------------------|-------------------------------------------------------------------------|------------------------|
| Individual                 | Approach to both Sport and Education        | Emphasis on sport and school achievement                               | 1, 4, 8, 11, 12, 13, 14 |
|                            |                                             | Success perspective in sport vs. education                              | 6, 7, 10, 11, 12, 13, 14 |
|                            |                                             | Trust and respect of coaches and teachers                              | 2, 3, 5, 6, 8, 9, 11   |
|                            |                                             | Integration into the dual career programme                             | 2, 4, 8, 9, 14         |
|                            |                                             | Feedback on athlete’s academic, personal and sport development         | 4, 5, 9, 10            |
|                            |                                             | Transfer of responsibility child’s education and athletic development  | 12                     |
|                            | Stressors and Coping                        | Pushy parents (i.e., pressuring their child or pushing the image of their child forward) and other parents’ behaviours | 2, 3, 4, 10            |
|                            |                                             | Managing split-family and work schedules with the sport commitment of the athlete | 3, 4, 10               |
|                            |                                             | Sibling inequality and guilt                                           | 3, 4                   |
|                            |                                             | Facilitator programme for parents                                     | 8, 9                   |
|                            |                                             | Necessity to relocate the family near the sport school                 | 12                     |
| Inter-Individual            | Relationship with the Athlete               | Athlete’s lifestyle management and monitoring the signs and symptoms of wellbeing/health/behavioural risks | 1, 2, 3, 4, 5, 8, 9, 10, 11, 14 |
|                            |                                             | Emotional anchoring parental role in fostering the athlete’s independence, personal balance and coping with stress | 2, 4, 5, 6, 7, 8, 9, 14 |
|                            |                                             | Financial support                                                      | 1, 2, 3, 4, 6, 7, 8, 9, 10 |
|                            |                                             | Logistic support                                                       | 1, 2, 3, 4, 8, 11, 14  |
|                            |                                             | Support for missed classes, school assignments, and exams              | 3, 4, 9, 10, 14        |
|                            |                                             | Athlete’s time management in balancing sport, school, family and social life | 3, 4, 5, 6, 10         |
|                            |                                             | Management of school and sport conflicts                               | 3, 4, 5, 14            |
|                            |                                             | Management of rivalry/conflicts/inequality of sibling/peers            | 3, 4, 7, 10            |
|                            |                                             | Questioning and reminding of the athlete’s experiences and goal setting | 5, 9                   |
|                            |                                             | Taking decisions about education and support on career transition       | 3, 4                   |
|                            | Relationship with the Sport Environment     | Quality communication with coaches and sport staff                     | 2, 3, 4, 5, 8, 14      |
|                            |                                             | Knowledge about a sport and time management at training and competitions | 1, 2, 3, 4, 7, 8       |
|                            |                                             | Dual career awareness of sport bodies                                  | 6, 8                   |
|                            |                                             | Parents as qualified coaches                                           | 11                     |
|                            | Relationship with the Academic Environment  | Quality communication regarding education                              | 3, 14                  |
|                            |                                             | Different educational set-ups/distant learning                         | 9, 14                  |
|                            |                                             | School support and anticipation of unequal treatments                  | 14                     |
The inter-individual level: the relationships of parents with their talented child and Her/His sport and academic environments

The general influence of parents on the children’s development and transition to adult life is well established, although it is not well known how parents help their talented progeny coping with several stressful situations during their sport and academic career [code: 3]. In supporting the educational and sport developmental pathways of their children, parents have to consider several aspects of effective DC support at the athlete’s personal and inter-personal levels (Guidotti et al., 2015; Li & Sum, 2017), including 1) pastoral care; 2) respect and empathy; 3) time management and goal setting; 4) connectedness to school; and 5) connectedness to sport (O’Neill et al., 2017). In the life of a student-athlete, parents are considered as central social agents [code: 6], with their role changing over time [code: 7], starting from the first stage of sport involvement, namely the “initiation stage”, to the “development stage”, parents provide both moral and financial support, being in general happy to be part of a wider “supporting team” of their children’s sport activity and being connected with other athletes’ parents during sport tournaments and social events [code: 8]. During the “mastery stage”, parents continue to enjoy their children’s involvement in sports, which is considered relevant for both the physical and psychological development of their children [code: 2]. Although during the “initiation stage” both parents are responsible for initially getting their children interested in sport with a main emphasis in experiencing fun and excitement [codes: 1, 8], in the “development stage” the parental involvement increases parallel to the growing interest for their children’s sport, with the mothers providing emotional and nurturing support and the fathers offering technical advices [code: 6]. Despite both parents playing a supportive role in their child’s sporting and academic endeavours, independent and interactive contribution of mothers and fathers have been reported. Interestingly, the present systematic review highlighted a lower involvement of fathers as participants in the included academic studies, possibly due to their limited time and their perceptions of being marginally involved in the daily organization schedules of the child with respect to the mothers [code: 10]. Nevertheless, both mothers and fathers reported concerns and worries about the future sport career of their children [code: 8]. In particular, some authors claimed that fathers tend to play a more dominant role in shaping their children’s sport experiences (Coakley, 2011), also having an important role on lowering the burnout symptoms in the sports domain when combined with a simultaneous low level of psychological control, whereas maternal affection playing a role on lowering the burnout symptoms in the academic domain when not combined with psychological control [code: 13].

The present systematic review highlighted a major concern of parents related to the health and wellbeing of their children, as well as their parental role in helping the athlete progressing towards independence and personal balance. Indeed, to maintain and/or enhance the health and wellbeing of their children and to prevent and/or reduce unnecessary stress possibly leading to risky behaviours, parents of student-athletes have to develop their capability of reading the athletes’ responsiveness and body language [code: 5]. In this respect, the recently revised position stand of the International Society of Sport Psychology could be considered a valuable resource to provide information on the multiple demands of DC and the dangers associated with the inability of athletes to cope with career development and transition (Stambulova et al., 2020).

Another relevant aspect of the parental support of DC athletes concerns the financial burden, which increases from the “initiation stage” to the “mastery stage”. In fact, parents typically sustain the expenses for the sport activity (e.g., the annual fees of youth academies and the purchase of sport equipment), which is considered vital for training and competitions in some disciplines [codes: 2, 4, 7, 10]. Furthermore, parents also sustain the education expenses (e.g., tuition fees, the purchase educational material, and extra lessons when needed) and tend to prevent the athletes’ engagement in distracting activities such as paid employments [code: 2]. These “financial sacrifices” can impact on the whole family budget, which could be a source of stress [code: 3] and reverberate on family conflicts or rivalries [code: 7]. Moreover, the financial burden is particularly demanding and stressful for the single parents (often mothers) who have to fulfil also domestic roles [codes: 7, 10], and for the athletes who could feel guilty for draining financial resources from their family [code: 10]. In general, families receive no or modest financial sacrifices from sports clubs or federation, generating a sort of “policy vacuum” for the sporting career of the athletes [code: 11].

In considering DC a multi-stakeholder phenomenon (Capranica & Guidotti, 2016; European Commission, 2012), connectedness of parents to the academic and sport staff is crucial (Camire, 2014). At an educational level, both academic and social domains are relevant for the athlete (Comeaux & Harrison, 2011). A particular concern relates to the amount of missed classes due to training and competition [code: 10], which could hinder the reciprocal meaningful functional relationship between the student-athletes and their academic environment (e.g., classmates, faculty, and coaches) with effects on the athletes’ social interactions within and beyond the classroom, as well as their acquisition of knowledge to make effective choices for their academic development (Comeaux & Harrison, 2011). Additionally, the proximity of schools and university to high-performance training facilities contributes to the successful management of a DC (Amsterdam University of Applied Sciences et al., 2016; Aquilina, 2013). As a consequence, in many countries sports schools providing flexibility and resources for the development of talented athletes have been established. Nevertheless,
when these sport schools are located far from the actual residence of the family, parents might consider the relocation of the whole family near the sport school or have their children living in a sport academy, thus delegating their guiding role to the sport club [code: 11]. Another possible option for athletes is to enrol in distance learning degrees, which might be particularly suitable for DC (European Commission, 2012). Actually, the recent COVID-19 pandemic lockdown presented a unique challenge to traditional academic institutions, with the educational landscape rapidly proposing several innovative and flexible solutions to mitigate the loss of direct face-to-face learning exposure during this time. The rapid shift to emergency teaching included the use of synchronous and asynchronous delivery of lectures using a variety of teleconferencing technologies in place of in-person lectures and on-line assessments replacing traditional summative examinations (Basilaia & Kvatadze, 2020). This quick transition to the online form of education and the appraisal of the student experience may be useful in guiding the future development and delivery of blended academic programmes, which will provide greater flexibility and further assist and facilitate student-athletes pursuing their studies.

At a sport level, coaches, parents, and athlete routinely interact and there is a need to establish an effective and positive coach–athlete–parent relationship (Listinskiene et al., 2019), also important to manage efficiently the parental logistical support of training and competitions arrangements. To achieve effective interaction and communication between parents and sport staff, it could be envisaged that clubs and academies engage psychologists for intervention programmes designed to foster a positive relationship between coaches and parents (Listinskiene et al., 2019), or DC tutors thereby educating parents and enhancing their awareness of essential DC policies and services in place at local, national, and international sport levels.

In the absence of flexible academic and/or sport curricula, student-athletes often have difficulty in managing effectively full-time academic and sport workloads (Amsterdam University of Applied Sciences et al., 2016). Regardless of the type of school and sport, athlete-friendly schools and supportive programmes tailored to meet the needs of student-athletes DC paths represent a crucial “support network” able to anticipate possible problems and to suggest effective solutions [codes: 11, 14]. Additionally, the development of core planning and organisational skills such as time management and goal setting could be enhanced through the sharing of the annual periodization of trainings and competitions between teachers, coaches and parents [code: 14] (O’Neill et al., 2017). According to several recommendations on DC (Amsterdam University of Applied Sciences et al., 2016; Caprancia & Guidotti, 2016; Condello et al., 2019; European Commission, 2012; Sanchez-Pato et al., 2017; Stambulova & Wylleman, 2019; Swedish Sport Confederation, 2018; Wylleman et al., 2017), prepared and dedicated DC staff in both the educational institutions and sport bodies is important to help student-athletes’ progresses and to monitor their wellbeing. In fact, parents recognize that qualified tutors are relevant to minimize barriers and to support the DC path of their children [codes: 10, 11, 14].

In response to the growing DC awareness, educational institutions and sport bodies from a number of European nations have developed programmes that address distinctive DC aspects by means of a variety of approaches (Amsterdam University of Applied Sciences et al., 2016), but there is still a need for the adoption of a systematic evaluation of their effectiveness and impact for the student-athletes, their parents, the institution, and the sport system (Navarro et al., 2019).

10. Methodological reflections

Two main considerations influenced the approach taken: 1) the awareness of the complexity and variety of parental interrelations due to the different individual’s beliefs, perceptions, approaches, and previous and actual experiences in family, academics, and sporting contexts; and 2) the intention to provide a sound evidence-base approach to the development a parenting programme primarily grounded on the parents’ perceived needs and challenges. Thus, the main limitation of this systematic literature review was the deliberate exclusion of articles related to support from other sources (e.g., athletes, siblings, coaches, teachers, etc.). Despite its limitation, the present review may provide important information to stimulate future research on the dynamic and evolving phenomenon of parenting student-athletes and the effects of determinants of positive or negative parental relationships in support of DC.

11. Future research and practical implications

The present analysis highlights that parenting student-athletes is a long-lasting process requiring efforts to prompt inclusive DC measures and support programmes for parents who could greatly contribute to the advancement of a European DC culture. In summarizing the parents’ views of parenting DC athletes, the present review and synthesis revealed commonalities with key findings of the literature on sport parenting and on DC transitions, specifically addressing the need of a cohesive and inclusive social support network in addition to personal efforts (Caprancia & Guidotti, 2016; Harwood & Knight, 2015, 2016; Li & Sum, 2017; Stambulova & Wylleman, 2019). Therefore, a thorough understanding of parents’ experiences is necessary to include parents as an essential component for the development of a DC culture. The proposed two-level construct represents a cultural shift in the relationships among four respective parties: parent, student athlete, academic staff, and sport staff. Accordingly, the response from academic institutions and sport bodies to the phenomenon of parental involvement should progress from active resistance to assigned services and professional DC personnel to respond to parent’s needs and concerns. In the meantime, whilst considering that parenting an elite athlete as student could reveal both positive and negative aspects, it is essential that educational programmes for parents take into account their typical lack of experience regarding operational strategies and limited information on specific policies and services currently available. Indeed, the interplay between the individuals, the socio-cultural environments, and the organizational aspects of DC setting requires further investigations taking into account different contexts (Storm et al., 2014).

The potential effect of stressors and costs of DC parenting urges scholars towards the identification of a DC parenting model based on cross-national and cross-sports research on the parents’ views of their supportive role and actual needs (Kamberelis & Dimitriadis, 2005; Parker & Tritter, 2006). In considering that several socio-cultural DC contexts are present worldwide, the gathering of parents’ views of their DC supportive role could prove invaluable in identifying relevant aspects of parenting student-athletes in relation to: 1) the athletes’ needs; 2) the parent’s need of information on the sport, academic, and DC policies and services; and 3) the most appropriate educational resource to empower their parental support. Furthermore, a concept mapping methodology involving a system-based approach to integrate ideas and knowledge across parents on specific approaches as to how different DC aspects relate could improve the development of our theoretical knowledge and provide a sound basis for directing effective policies and interventions (Trochim, 1989; Trochim et al., 2008). In conclusion, the present review provided the necessary systematic review of the evidence base for further applied works.

Funding

This work was supported by the European Commission under the Erasmus + Programme [number 590437-EPP-1-2017-1-SI-SPO-SCP].

CRediT authorship contribution statement

Antonio Tessitore: Conceptualization, Methodology, Data curation, Formal analysis, Writing – original draft, preparation. Laura Capranica: Conceptualization, Methodology, Data curation, Formal analysis, Writing – review and editing.
Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Amsterdam University of Applied Sciences. (2016). Birch consultants, the talented athlete scholarship scheme, the vrije universiteit brussel, and European athletes as student network. Study on the minimum quality requirements for dual career services. Research report http://bookshop.europa.eu/978-9063001351/M4779/bookshop-europa.html.

Aquiná, D. (2013). A study of the relationship between elite athletes’ educational development and sporting performance. International Journal of the History of Sport, 30(4), 374–392. https://doi.org/10.1080/09523367.2013.781729

Aquiná, D., & Henry, J. (2010). Elite athletes and university education in Europe: A review of policy and practice in higher education in the European union member states. International Journal of Sport Policy and Politics, 2, 25–47. https://doi.org/10.1080/19406941003634024

Aspire Institute. (2020). Elite athletes—performers. https://aspire.edu.au/elite-athlete-s-performers/

Aumolá, K., Sorkkila, M., Viljaranta, J., Tolvanen, A., & Ryba, T. V. (2018). The role of parental resources and support in the development and sporting performance. Psychology of Sport and Exercise, 16, 139–149. https://doi.org/10.1016/j.psychsport.2014.10.005

Harwood, C., Drew, A., & Knight, C. J. (2010). Parental stressors in professional youth football academies: A qualitative investigation of specific stage parent parenting. Qualitative Research in Sport and Exercise, 2(1), 39–55. https://doi.org/10.1080/19394904093151052

Harwood, C., & Knight, C. (2009). Understanding parental stressors: An investigation of British tennis-parents. International Journal of Sport Policy and Politics, 1(4), 339–351. https://doi.org/10.1080/00336297.2019.1627561

Harwood, C., & Knight, C. J. (2015). Parenting in youth sport: A position paper on parenting expertise. Psychology of Sport and Exercise, 16, 24–35. https://doi.org/10.1016/j.psychsport.2015.11.007

Kamiré, M. (2014). Youth development in North American high school sport: Review and recommendations. Quest, 66(4), 495–511. https://doi.org/10.1080/00336297.2019.1627561

Domingues, M., & Gonçalves, C. E. (2013). The role of parents in talented youth athlete: Lessons for parents. Journal of Applied Sport Psychology, 30(4), 437–455. https://doi.org/10.1016/j.appliedsportpsychology.2017.1382019
