

A Bibliometric Analysis of Dual Career Research in Sport

Spor Alanındaki Çift Kariyer Araştırmalarının Bibliyometrik Analizi

Ferhat Caner AÇIKBAŞ*, Mehmet Şükrü AYYILDIZ**

*Correspondence:

Ferhat Caner Açıkbaş

acikbasferhat@mersin.edu.tr

¹Mersin Üniversitesi, Turizm Fakültesi,
Rekreasyon Yönetimi, Mersin, Türkiye
ORCID: 0000-0003-0219-8447,
E-mail: acikbasferhat@mersin.edu.tr

²Tekirdağ Namık Kemal Üniversitesi,
Spor Bilimleri Fakültesi, Tekirdağ,
Türkiye
ORCID: 0000-0002-1567-5890, E-
mail: mayyildiz@nku.edu.tr



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Abstract

This study aimed to examine the structure, development, and thematic orientation of the academic literature on dual careers in sport through bibliometric analysis. Data were retrieved from the Web of Science Core Collection in the second quarter of 2026 using a topic search combining “dual career” and “sport.” After applying filters for document type (article), citation indexes (SSCI, SCI-Expanded, and A&HCI), and language (English), the initial dataset of 386 records was reduced to 309 articles published between 2012 and 2026. Bibliometrix R and VOSviewer were jointly employed for performance analysis and science mapping. The analyses covered annual scientific production, citation patterns, country productivity, international citation networks, keyword co-occurrence, trend topics, thematic evolution, and word frequencies. The findings revealed an annual publication growth rate of 21.9%, with 1,004 authors contributing to 96 sources. Internationally co-authored publications accounted for 43.69% of the articles, while the average number of citations per document was 16.14. Spain and the United Kingdom were the most productive countries, followed by Finland, Italy, and Germany. Keyword analyses identified “dual career” and “sport” as the field’s core concepts. Over time, the thematic focus shifted from performance- and transition-oriented issues toward mental health, identity, social support, and the holistic ecological approach. Overall, dual-career research in sport represents a growing interdisciplinary field that has evolved from a career-centered perspective toward a more holistic understanding of athletes’ lives. Future progress requires broader samples and stronger international collaboration.

Keywords: sport, career, dual career, bibliometric analysis, student-athlete

Özet

Bu çalışma, spor alanındaki ikili kariyer (dual career) konulu akademik literatürün yapısını, gelişimini ve tematik yönelimini bibliyometrik analiz yoluyla incelemeyi amaçlamaktadır. Veriler, 2026 yılının ikinci çeyreğinde Web of Science Core Collection veri tabanından “dual career” ve “sport” terimlerinin birlikte kullanıldığı konu taraması aracılığıyla elde edilmiştir. Doküman türü (makale), atıf indeksleri (SSCI, SCI-Expanded ve A&HCI) ve dil (İngilizce) filtrelerinin uygulanmasının ardından, başlangıçta elde edilen 386 kayıt, 2012–2026 yılları arasında yayımlanmış 309 makaleye indirgenmiştir. Performans analizi ve bilim haritalaması için Bibliometrix R ve VOSviewer programları birlikte kullanılmıştır. Analizler kapsamında yıllık bilimsel üretim, atıf örüntüleri, ülkelere göre yayın üretkenliği, uluslararası atıf ağları, anahtar kelime eş oluşumu, trend konular, tematik evrim ve kelime sıklıkları incelenmiştir. Bulgular, yıllık yayın artış oranının %21,9 olduğunu ve 96 farklı kaynaktan 1.004 yazarın katkı sunduğunu ortaya koymuştur. Uluslararası ortak yazarlı yayınlar makalelerin %43,69’unu oluştururken, belge başına ortalama atıf sayısı 16,14 olarak belirlenmiştir. İspanya ve Birleşik Krallık en üretken ülkeler olarak öne çıkmış; bu ülkeleri Finlandiya, İtalya ve Almanya izlemiştir. Anahtar kelime analizleri, “dual career” (ikili kariyer) ve “sport” (spor) kavramlarının alanın temel kavramları olduğunu göstermiştir. Zaman içerisinde tematik odak, performans ve geçiş odaklı konulardan ruh sağlığı, kimlik, sosyal destek ve bütüncül ekolojik yaklaşıma doğru kaymıştır. Genel olarak, spor alanındaki ikili kariyer araştırmaları, kariyer merkezli bir bakış açısından sporcuların yaşamlarını daha bütüncül biçimde anlamaya yönelen, gelişmekte olan disiplinler arası bir alanı temsil etmektedir. Gelecekteki gelişmeler için daha geniş örneklemelere ve daha güçlü uluslararası iş birliklerine ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Spor, kariyer, ikili kariyer, bibliyometrik analiz, öğrenci-sporcu

<https://www.ijoss.org/Archive/v3-i3/ijoss-Volume3-issue3-18.pdf>

Introduction

Rapid technological, economic, and social change has reshaped labor markets and made employment considerably more competitive (Eratlı Şirin et al., 2020). Because working conditions have grown volatile, individuals now face direct pressure on their occupational choices, career plans, and long-term goals (Ulun, 2023), and managing a career in a deliberate, planned, and sustainable way has gained weight accordingly (Yılmaz, et al., 2023). The meaning attached to the career concept has changed in parallel. For a long period, a career was read as advancement within a single organization, together with the status and the economic progress that such advancement brings (Super, 1980). From the 1970s onward, accelerating technological change pushed scholars beyond the intra-organizational view, and the boundaryless career perspective reframed careers as sequences of experience crossing organizational borders (Arthur and Rousseau, 1996). Globalization, flexible work arrangements, and shifts in management practice then raised the strategic weight of career issues for organizations as well as individuals (Sturges, 2008; Sullivan and Baruch, 2009). Under current conditions, careers are evaluated within more permeable labor markets, diversified forms of work, and widened opportunities for personal development (Baruch, 2014).

One consequence of this transformation is the rise of career models that let individuals build knowledge, skill, and experience in more than one field at the same time. The dual career approach expresses exactly that idea: a planning framework within which a person advances along two career tracks simultaneously (Özyüksel Mihrioğlu and Kalfa, 2024). In sport, a dual career refers to athletes maintaining their athletic activity while continuing their education or vocational development (Stambulova and Wylleman, 2015; Wylleman, et al., 2013). Viewed from the athlete's side, the approach concerns not only performance but also long-term quality of life, career sustainability, and adjustment to life after sport, so athletes' development is treated through academic attainment, social adjustment, psychological resilience, and career transitions together (Wylleman and Lavallee, 2004). Empirical work supports this framing. Athletes who kept sport and education in balance were found to adapt more easily after retirement from sport, to enter the labor market with less friction, and to report higher life satisfaction (Tekavc, et al., 2015; Torregrosa et al., 2015). Even then, the process carries costs. Heavy training loads, academic obligations, and performance pressure strain time management and raise stress levels, and burnout, loss of motivation, and role conflict can follow (Gledhill and Harwood, 2015; Sorkkila, et al., 2017). High expectations on both fronts also shape identity development and social life during the years in which sport and study run side by side (Brown et al., 2015). Not because individual effort is unimportant but because it is insufficient on its own, dual careers are increasingly discussed within institutional support mechanisms and policy frameworks; the European Union's dual career guidelines are the clearest example of regulation designed to let athletes carry education and sport together within an integrated system (European Commission, 2012; Guidotti, et al., 2015).

Academic interest in the field has grown visibly. Work from sport sciences, education, psychology, and sociology has covered a wide range of questions, from athletes' educational experiences and career transitions to psychosocial adjustment and

institutional support. For the most part, however, this work has concentrated on particular slices of the dual career process, and studies mapping the field's overall knowledge structure, growth pattern, and production dynamics have remained scarce (Guidotti et al., 2015; Li and Sum, 2017; Vidal-Vilaplana et al., 2022). The rapid rise in output, together with the increasingly interdisciplinary character of the area, makes such a synthesis hard to build by narrative means alone. Bibliometric analysis answers this need. By treating scientific production quantitatively and structurally, it exposes growth trends, research gaps, influence patterns, and knowledge networks in a given field (Aria and Cuccurullo, 2017; Donthu et al., 2021; Zupic and Čater, 2015). Publication counts, citation relations, author cooperation, country contributions, and keyword networks can all be examined systematically in this respect, and both the current state and the likely direction of a research area can be read from them.

Against this background, an important gap concerns the integration of knowledge on dual careers in sport: individual studies provide insights into specific aspects of the topic, but understanding how these contributions collectively shape the field requires a systematic examination of its development, citation relationships, and thematic organization. In particular, examining publication growth, the geographical distribution of research, citation structures, and conceptual networks together can clarify how research attention is distributed and which topics remain comparatively underexplored. To address this gap, the present study maps the scientific literature on dual careers in sport through a bibliometric analysis of publications indexed in the Web of Science Core Collection using the search terms “dual career” and “sport”. By integrating these complementary dimensions, the study aims to provide a field-level account of the literature, identify thematic concentrations and comparatively less-developed research areas, and establish a reference point for future investigations. The following research questions guided the analysis:

1. How has annual academic production in the dual career and sport field developed over the years?
2. Which countries produce the most research in this field?
3. What citation performance has the literature achieved?
4. What is the structure of the keyword co-occurrence network linking dual career and sport?
5. How are trend topics, word frequencies, and the field's conceptual structure shaped over time?

MATERIALS AND METHODS

Research Design

The study was designed as a bibliometric analysis. Bibliometrics examines the scientific production of a research area through quantitative data, identifies its developmental dynamics and research trends, and permits grounded projections about its future direction (Donthu et al., 2021; Zupic and Čater, 2015; Kara, 2025). Two complementary operations sit inside the method: performance analysis, which reports

the contribution of research constituents such as authors, countries, and sources, and science mapping, which traces the relational structure among them.

Data Collection and Screening

Records were retrieved from the Web of Science Core Collection (WoS) in the second quarter of 2026. The search was restricted to WoS deliberately, given that the database offers curated indexing, standardized citation data, and export formats that both analysis programs read without loss. A topic search covering titles, abstracts, and keywords with the terms “dual career” and “sport” returned 386 records. Screening then proceeded in three steps (Figure 1). Restricting the document type to articles left 337 records; keeping only work indexed in the SSCI, SCI-Expanded, and A&HCI left 334; applying the language criterion (English) produced the final corpus of 309 articles published between 2012 and 2026. Because retrieval took place in mid-2026, the figures for the final year cover roughly half of it, and this truncation is taken into account wherever annual values are interpreted.

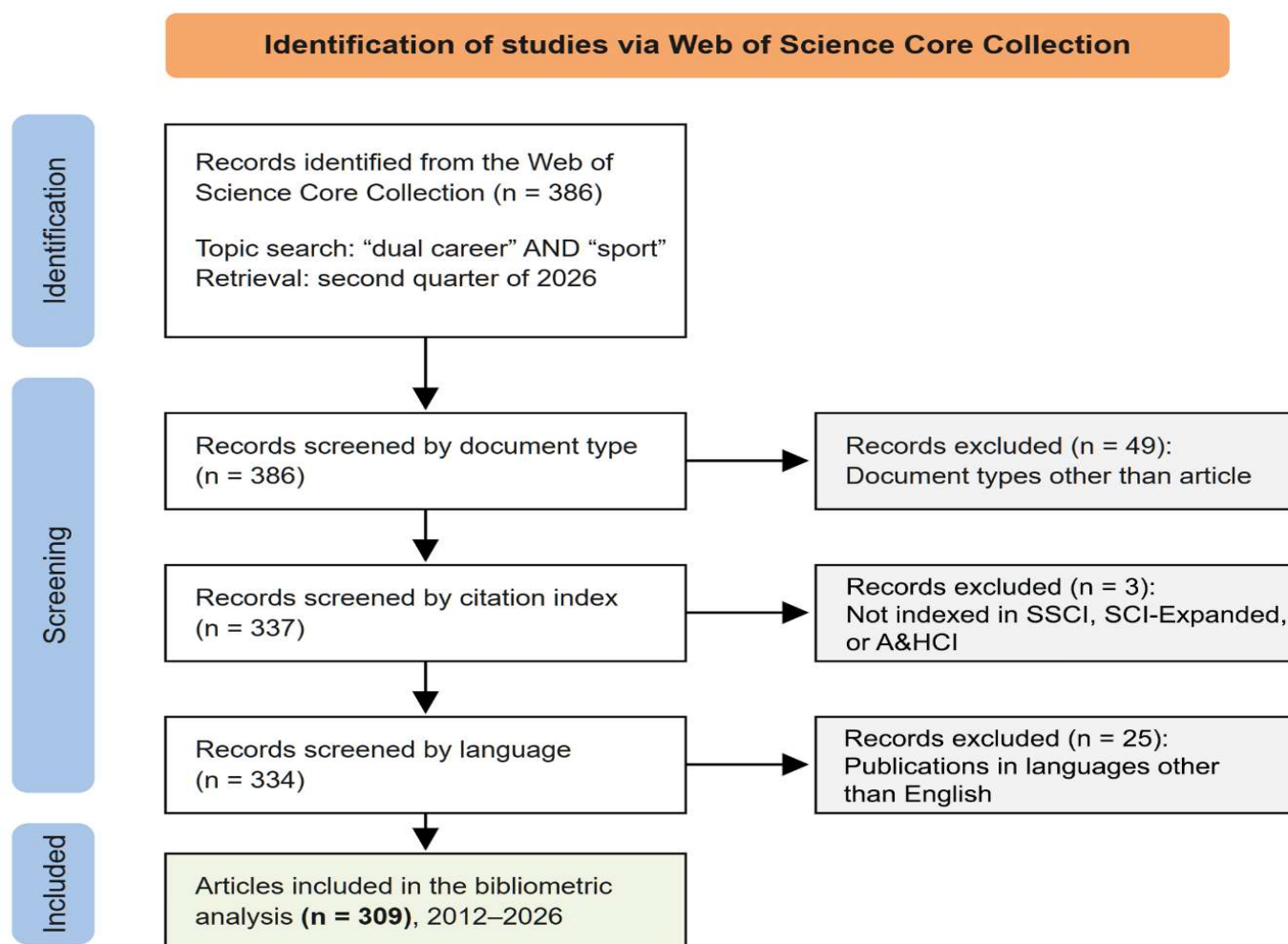


Figure 1. Main Information About the Dataset

Two programs were used together. Bibliometrix, an open-source package written in R, carried the performance side of the analysis: publication counts, citation statistics, author cooperation, and keyword distributions (Aria and Cuccurullo, 2017). VOSviewer built and displayed the network side, covering co-authorship, keyword co-occurrence,

and citation maps (Van Eck and Waltman, 2010; Dereli, 2024). Joint use of the two programs is common practice because their strengths differ: Bibliometrix offers wider statistical processing, while VOSviewer produces more legible network graphics, and results drawn from one can be read against the other (Arruda et al., 2022). By means of this combined workflow the following outputs were produced: main information about the corpus, annual scientific production, mean citations per year, country production over time, the country citation network, the keyword co-occurrence network, trend topics, the thematic evolution map, the word cloud, and word frequencies over time.

Result

Table 1 summarizes the corpus. The 309 articles span 2012 to 2026 and appeared in 96 different sources. Annual growth in output stood at 21.9%. The mean document age was 4.26 years, and each document had received 16.14 citations on average at the time of retrieval. In total, 1004 authors contributed to the corpus; only 12 of them appear in single-authored documents, and the mean number of co-authors per document was 5.29. The share of internationally co-authored articles stood at 43.69%, a level that points to considerable cross-border cooperation. Authors used 804 distinct keywords across the corpus.

Table 1. Main information About the Dataset

Indicator	Value
Timespan	2012–2026
Sources (journals)	96
Documents	309
Annual growth rate (%)	21.9
Document average age (years)	4.26
Average citations per document	16.14
Authors	1004
Authors of single-authored documents	12
Co-authors per document	5.29
International co-authorship (%)	43.69
Author keywords	804

Note. Values were produced with the Bibliometrix main information routine.

Annual Scientific Production

Figure 2 traces annual output between 2012 and 2026. Production remained minimal from 2012 to 2014, rose sharply in 2015, and dropped again in 2016. Output then recovered in 2017 and increased further in 2018, before a modest decline in 2019. From 2020 onward the upward trend strengthened, with further gains in 2021 and a pronounced increase in 2022. Output fell in 2023, rose again in 2024, and reached its

highest level in 2025. The lower count observed in 2026 reflects the fact that the year was still incomplete at the time of retrieval, rather than a true reversal of the trend.

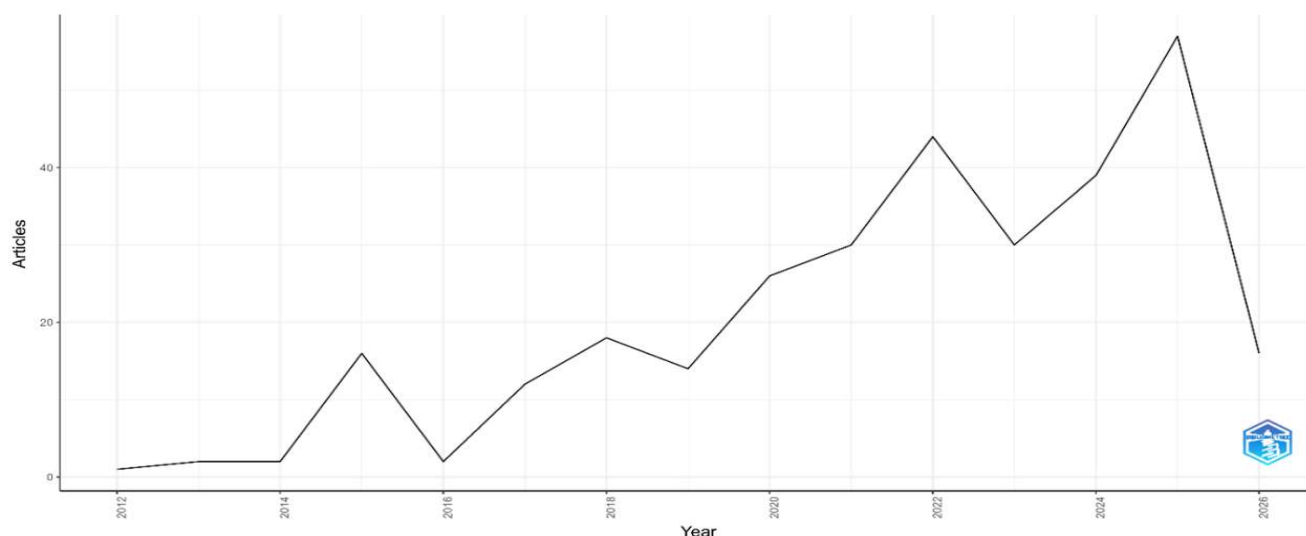


Figure 2. Annual Scientific Production

Mean Citations per Year

Figure 3 presents mean citations per year between 2012 and 2026. The curve opens at roughly 1.5 citations in 2012, rises to its highest point in 2013 at above 7, and falls below 1 in 2014. A second peak of similar height follows in 2015, after which values drop to about 2 in 2016. Between 2017 and 2021 the series moves within a band of roughly 2 to 3.5 citations, with a local high around 2020. From 2021 onward values decline year on year, reaching approximately 1.5 in 2023 and remaining below 2 through 2026, where the series closes at its lowest level since 2014.

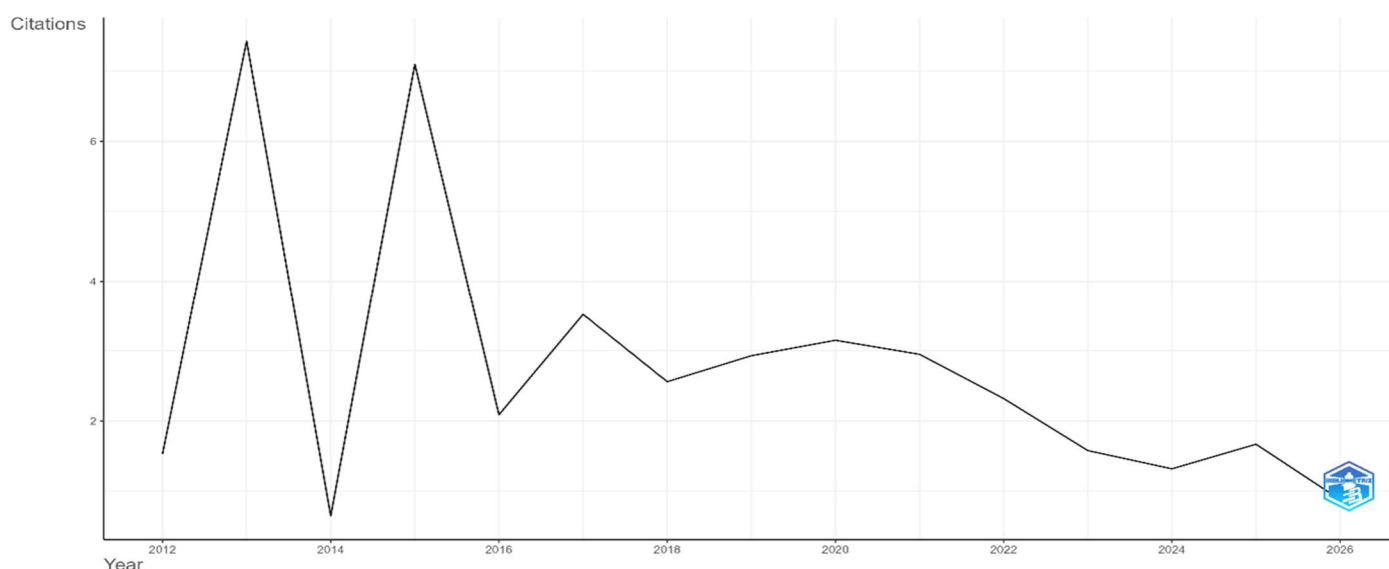


Figure 3. Mean Citations per Year

Country Production over Time

Figure 4 and Table 2 present the cumulative scientific production of the five most productive countries. One point of method needs stating first: the underlying indicator counts country appearances across author affiliations cumulatively, so the values exceed the number of distinct articles and should be read as measures of national participation

rather than as article counts. Spain reached the highest cumulative value (171 by 2026), followed by the United Kingdom (157). Finland ranked third (108), ahead of Italy (104) and Germany (95). The ordering was not stable across the whole window. Italy led the field in the early years and held the highest values until 2017, after which Spain and the United Kingdom moved ahead on the strength of rapid growth from 2020 onward. Finland’s curve rose steadily from 2017 and overtook Italy’s in the mid-2020s, while Germany’s output grew latest and stayed the lowest of the five in the final years. Production accelerated in all five countries after 2018, and the steepest climbs fell between 2021 and 2025.

Table 2. Cumulative Country Scientific Production at Selected Years

Country	2014	2017	2020	2023	2026
Spain	0	13	43	98	171
United Kingdom	0	11	35	95	157
Finland	0	9	36	78	108
Italy	7	20	37	67	104
Germany	2	6	16	42	95

Note. Values are cumulative counts of country appearances across author affiliations, as produced by the Bibliometrix “Country Production over Time” routine; they therefore exceed the number of distinct articles. Countries are ordered by their 2026 values.

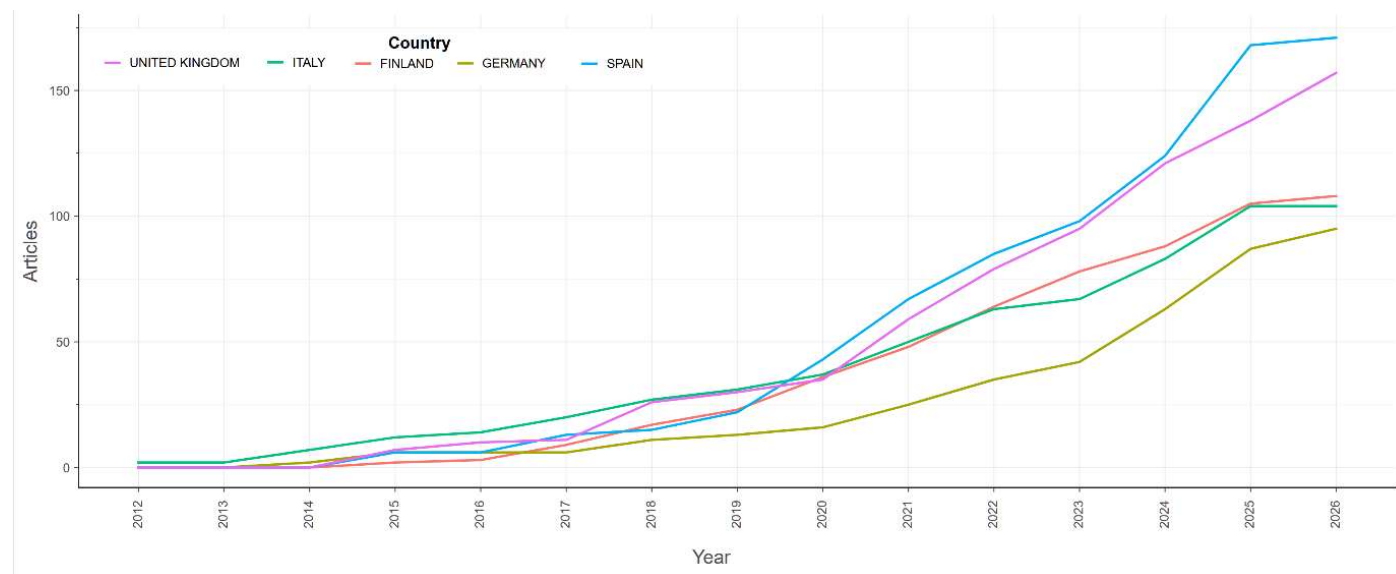


Figure 4. Country Production over Time

Country Citation Network

The country citation network in Figure 5 consists of 7 clusters, 39 nodes, 243 links, and a total link strength of 718. Node size reflects citation weight, and node color codes the average publication year of each country's output on a scale running from 2021 (dark blue) to 2024 (yellow). Spain forms the largest node, followed by Italy, England, Finland, Slovenia, and Germany, all placed in the central region of the map with numerous links among them. Portugal, Norway, and Denmark occupy mid-sized positions. Color separates the countries by recency: Italy, Belgium, Portugal, and Scotland appear in dark blue, corresponding to average publication years around 2021, while Norway, Serbia, the Czech Republic, and South Africa appear in yellow, corresponding to averages near 2024;

the USA and Brazil sit in the green mid-range. Colombia, Lithuania, Latvia, Singapore, South Korea, and Canada are placed at the edges of the map with few links each.

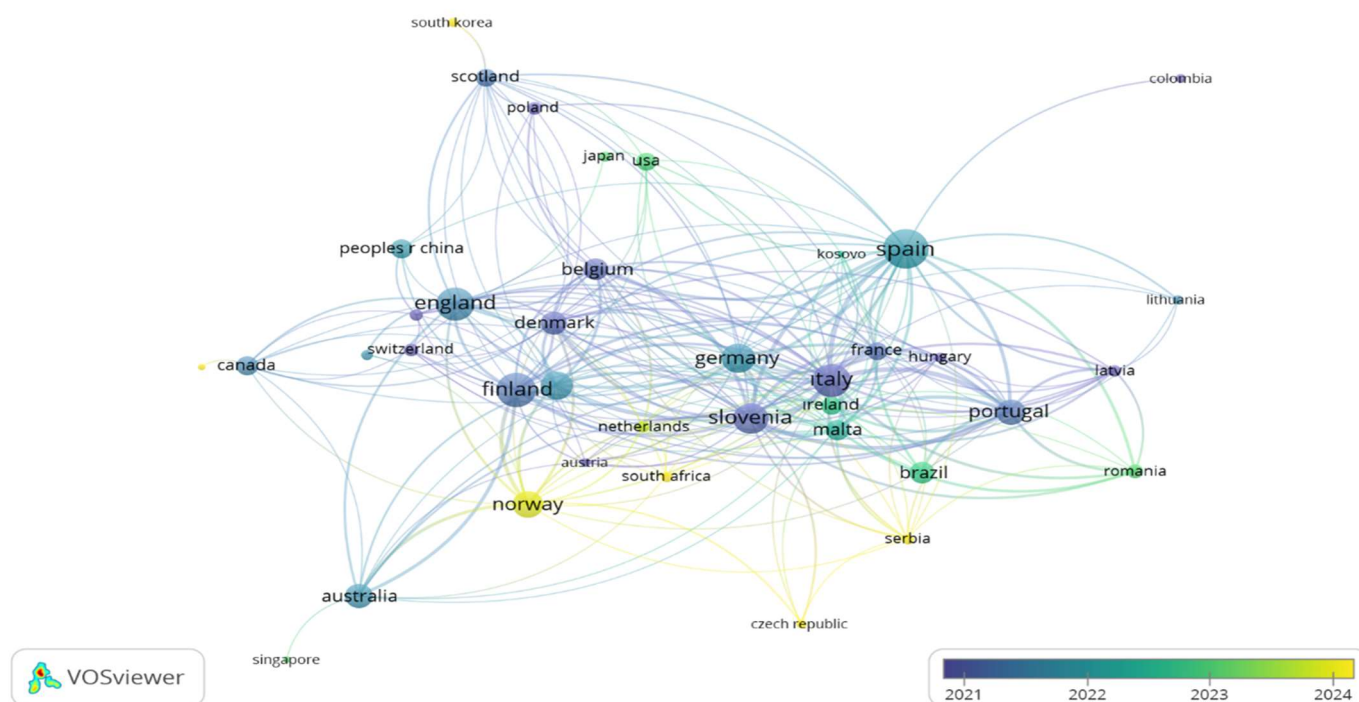


Figure 5. Country Citation Network

Keyword Co-occurrence Network

Figure 6 maps the co-occurrence of author keywords. Node size reflects occurrence frequency, and node color codes the average publication year of the documents using each term, on a scale from 2019 (dark blue) to 2024 (yellow). "Dual career" forms the largest node at the center of the map, connected to most of the surrounding vocabulary. "Elite sport", "higher education", "education", "student-athlete", "sport", and "talent development" appear as the next largest nodes. Color places the terms in time. "Sport career", "academic career", "athletic career", "performance", "lockdown", and "covid-19" appear in dark blue, corresponding to average publication years around 2019–2020. Mid-scale green covers the field's core, including "dual career", "education", "elite sport", and "sport and education". Yellow marks the terms with the most recent averages, around 2023–2024, among them "social support", "adolescent athletes", "engagement", "burnout", "depression", "academic performance", "athlete", and "dual careers". "Holistic ecological approach" sits in the lower right of the map in green, and methodological terms such as "cluster analysis", "confirmatory factor analysis", and "latent profile analysis" appear at the upper edge.

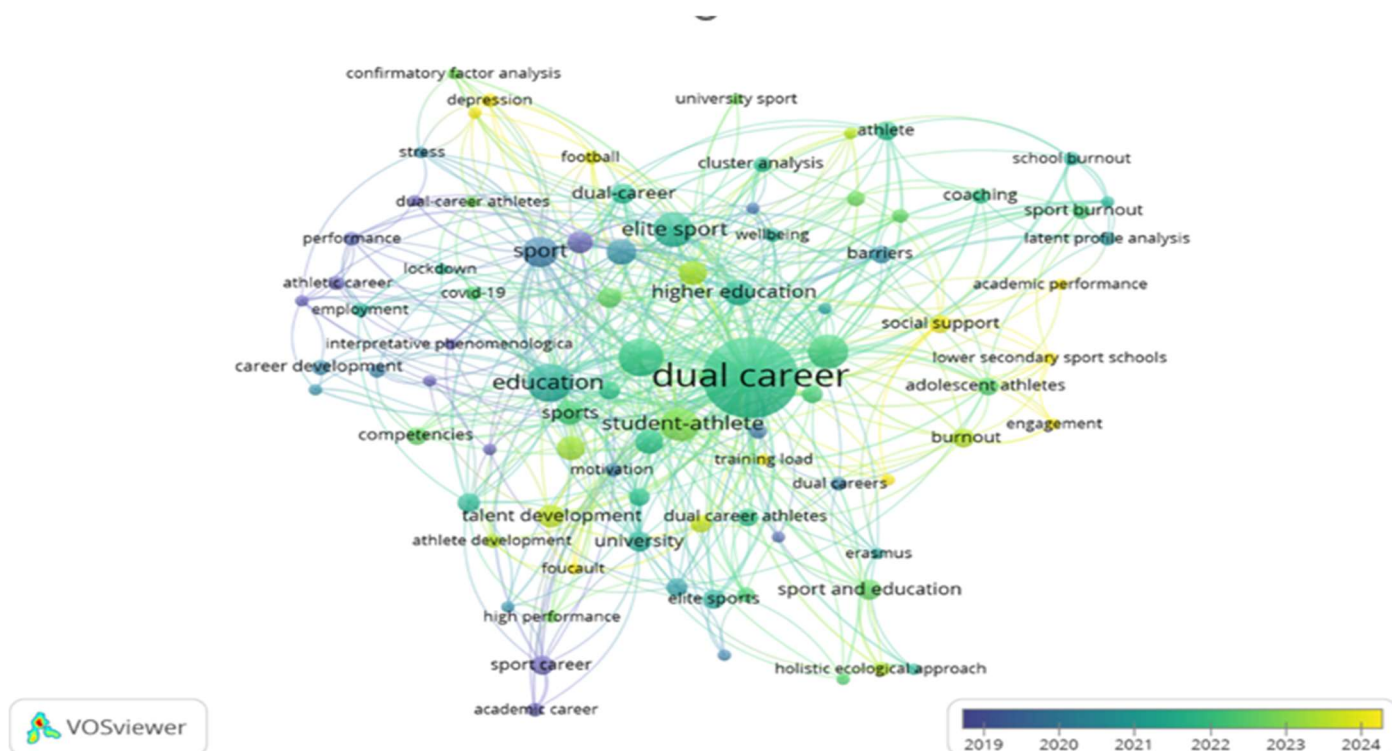


Figure 6. Keyword Co-occurrence Network

Keyword Co-occurrence Network

Figure 7 plots prominent terms by their period of use. For each term, the dot marks the median year of use, the horizontal line spans the interquartile range, and dot size reflects term frequency on a scale from 25 to 125. "Career transition" carries the earliest median year (2018), followed by "field" and "successful talent development" (2019), then "performance", "motivation", and "perspective" (2020). "Transition", "transitions", and "sports" have medians in 2021. "Sport", "experiences", and "dual-career" follow in 2022, and the two largest dots in the chart belong to "sport" and "dual career", at frequencies near the top of the scale. "Dual career", "psychology", and "student-athlete" have medians in 2023; "athletes", "mental health", and "achievement" in 2024; and "engagement", "symptoms", and "talent development" in 2025. The interquartile spans of "performance", "motivation", and "transition" each cover five or more years, whereas the spans of the most recent terms, such as "engagement" and "symptoms", are confined to 2023–2025.

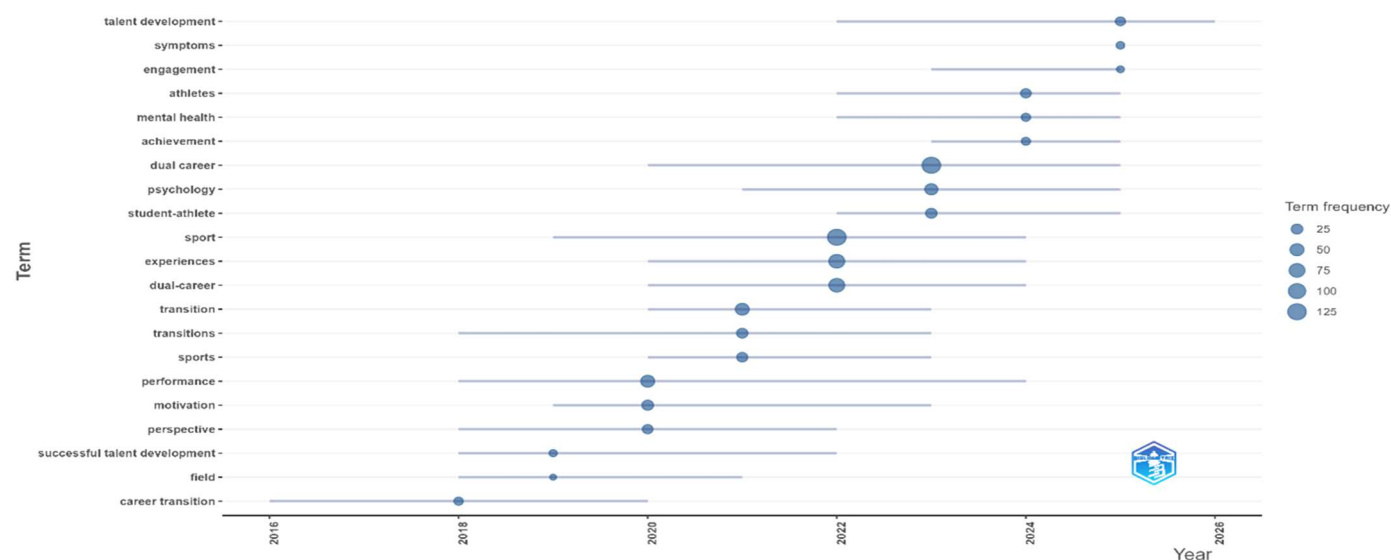


Figure 7. Trend Topics

Keyword Co-occurrence Network

Figure 8 presents the thematic evolution map across two periods, 2012–2022 and 2023–2026, with themes shown as labeled blocks and continuities between periods shown as flows. The first period contains thirteen themes: "athlete", "burnout", "career transition", "cluster analysis", "coaching", "coping", "dual career", "elite athletes", "higher education", "latent", "life skills", "sport and education", and "support". The second period contains twelve: "adolescent athletes", "athletes", "development", "dual career", "dual career athletes", "elite athletes", "elite sports", "holistic ecological approach", "identity", "soccer", "social support", and "youth sport". "Dual career" appears with the largest label in both periods. The flows run predominantly toward it: links from "athlete", "career transition", "coping", "higher education", "sport and education", and other first-period themes converge on "dual career" in the second period, which also receives the widest inflows on the map. "Elite athletes" is the only theme name present in both columns besides "dual career". Themes without a first-period counterpart, among them "holistic ecological approach", "identity", "social support", "development", "adolescent athletes", and "youth sport", enter the map in the second period.

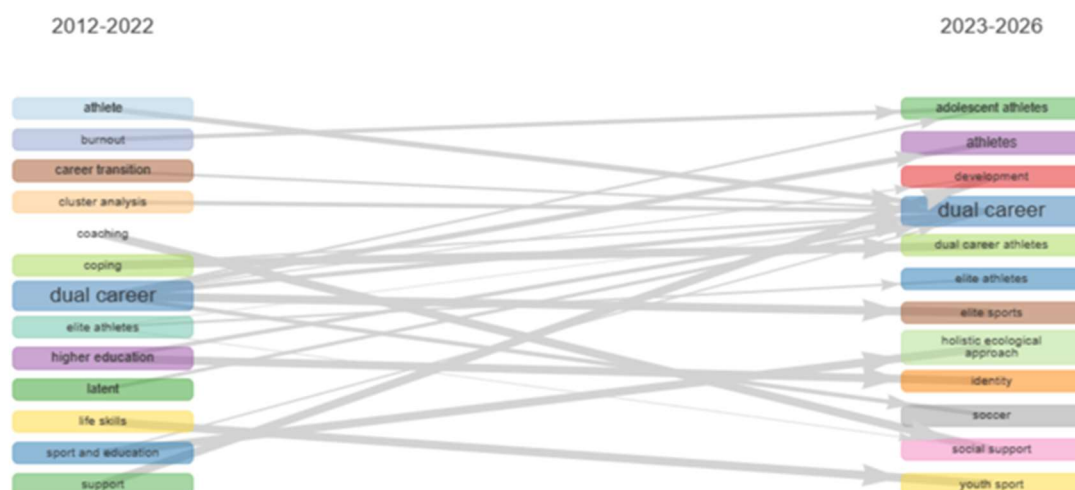


Figure 8. Thematic Evolution Map (2012–2022 vs. 2023–2026)

World Frequencies

Table 3 lists the ten most frequent author keywords by cumulative occurrence at the 2026 endpoint. "Sport" and "dual career" shared the highest value at 125 occurrences each, and the hyphenated variant "dual-career" (76), indexed as a separate string, brings the combined total for the concept to 201. "Experiences" (75), "education" (66), "elite sport" (58), "performance" (49), "transition" (48), "identity" (48), and "retirement" (44) complete the list.

Table 3. Ten Most Frequent Author Keywords (Cumulative Occurrences, 2012 – 2026)

Rank	Keyword	Cumulative occurrences
1	sport	125
1	dual career	125
3	dual-career	76
4	experiences	75
5	education	66
6	elite sport	58
7	performance	49
8	transition	48
8	identity	48
10	retirement	44

Note. Values are cumulative counts of country appearances across author affiliations, as produced by the Bibliometrix "Country Production over Time" routine; they therefore exceed the number of distinct articles. Countries are ordered by their 2026 values.

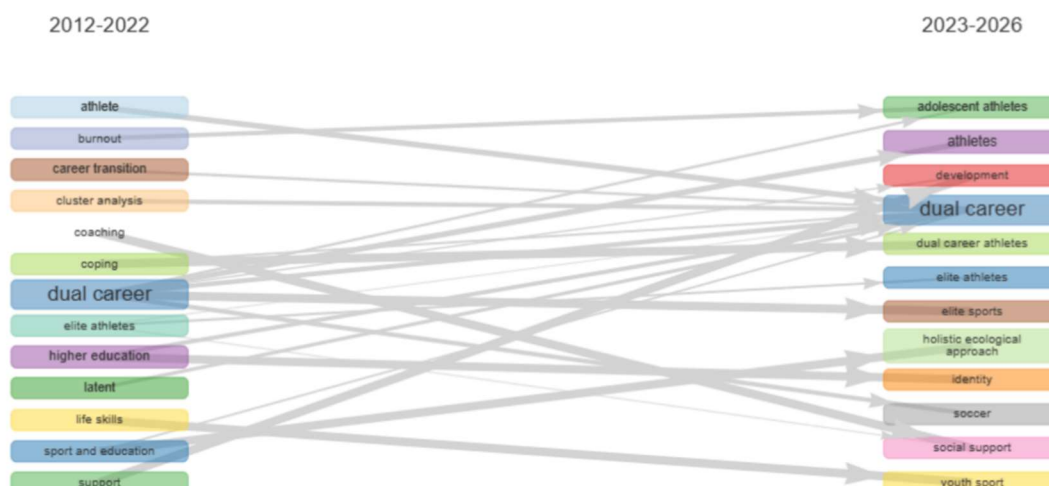


Figure 9 presents the corresponding word cloud, in which font size is proportional to occurrence frequency. "Dual career", "sport", "dual-career", and "experiences" carry the largest print, with "education", "elite sport", "performance", "retirement", "identity", and "transition" at the next size level



Figure 9. Word Cloud of Author Keywords

Figure 10 traces the cumulative use of the ten terms over time. All curves stay near zero through 2014, rise from 2015 onward, and steepen after 2020. The two leading terms separate from the group at roughly 2019, and the remaining eight close the window between 44 and 76 occurrences.

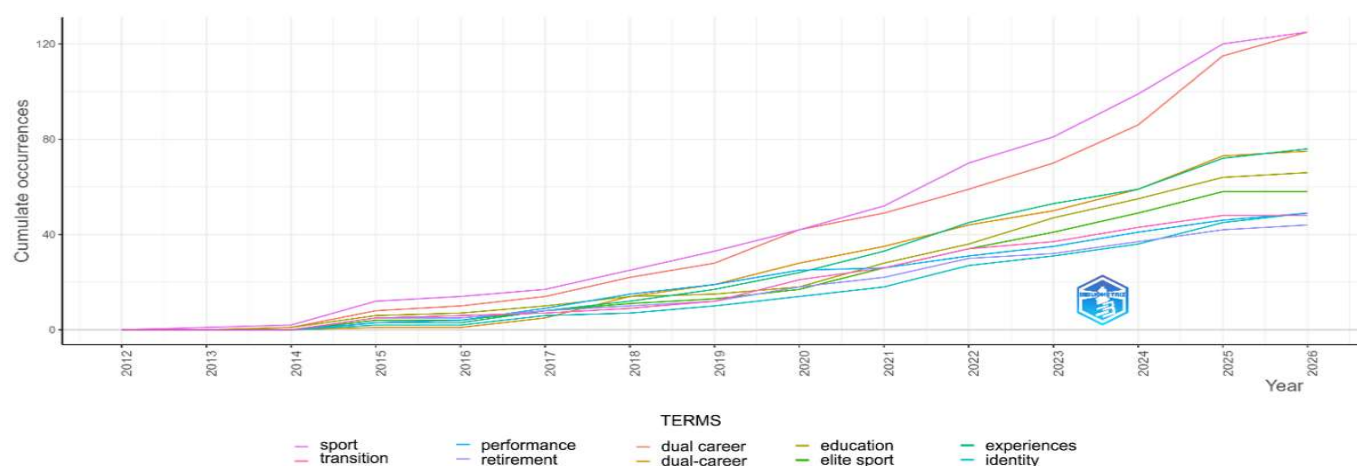


Figure 10. Cumulative Word Frequencies over Time

Discussion

Annual output grew at 21.9% per year, from near zero in 2012 to a peak in 2025, and the timing of that growth is not accidental. The European Union's dual career guidelines appeared in 2012 (European Commission, 2012), the first systematic review of European student-athlete research followed shortly after (Guidotti et al., 2015), and a dedicated special issue then consolidated dual career development and transitions as a named research program (Stambulova and Wylleman, 2015). Publication counts accelerated precisely in the years after this institutional and editorial groundwork; the same expansion has been reported in the field's more recent mapping work (Vidal-Vilaplana et al., 2022). What the corpus records, in short, is the maturation of a policy-driven research agenda.

Geography tells a similar story. Spain and the United Kingdom accumulated the largest output, and all five leading producers are European, which fits the origin of the concept in European sport policy and the funding streams attached to it. One detail in the country data deserves emphasis: Finland, a small country by research volume, outproduced both Italy and Germany in cumulative participation by 2026. Concentrated research groups, not national size, appear to shape this literature. The citation network reads the same way, since its largest and most connected nodes are European while countries such as Canada, Australia, and Singapore sit at the map's edges with few links. Widening this geography stands as one of the field's open tasks (Li and Sum, 2017).

The citation figures suggest a developing research field in which earlier contributions have accumulated scholarly attention, with an average of 16.14 citations per document. The peak in mean citations per year for publications from the mid-2010s can be contextualized by Stambulova and Wylleman's (2019) review, which identified the 2015 special issue on dual career development and transitions as a notable contribution to the European dual career discourse. Although their review did not examine the same citation indicators, it provides a substantive context for interpreting the visibility of publications from this period. ScienceDirect The lower averages observed for more recent publication

years should nevertheless be interpreted cautiously. Wang (2013) demonstrated that short citation windows have limitations in approximating long-term citation impact and that citation ageing varies across publications and research fields. Accordingly, the recent decline may partly reflect the shorter time available for newer articles to accumulate citations; it does not, by itself, establish declining influence or allow firm conclusions about their eventual impact.

The vocabulary of the field carries its double face. "Dual career" sits at the center of the co-word network, surrounded by "sport", "education", "student-athlete", and "higher education", a configuration that matches the holistic view of athlete development in which sporting, academic, psychological, and psychosocial strands run together (Wylleman and Lavallee, 2004; Stambulova and Wylleman, 2015). Around that core, the presence of "burnout", "stress", "motivation", and "well-being" mirrors what primary studies report from both directions: balancing sport and education eases retirement, labor-market entry, and life satisfaction (Tekavc et al., 2015; Torregrosa et al., 2015), while heavy simultaneous demands raise stress and burnout risk and complicate identity work during the university years (Brown et al., 2015; Gledhill and Harwood, 2015; Sorkkila et al., 2017). Promise and cost are written into the network side by side.

Change over time is the most consistent signal in the data. Trend, evolution, frequency, and co-word overlay analyses converge on one reading: vocabulary moved from career transitions and performance toward mental health, identity, and social support, and six of the twelve themes in the 2023–2026 map are new entries, among them the holistic ecological approach. That last term names a genuine reorientation, away from the athlete as an isolated copier and toward the environments in which dual careers are lived, in line with the ecological program developed for talent environments (Henriksen and Stambulova, 2017). The arrival of "adolescent athletes" and "youth sport" extends the same movement downward in age. Even then, the corpus remains concentrated on elite athletes and a narrow set of contexts, so the widening recorded at the level of concepts has not yet been matched by an equal widening of samples.

Conclusion

Research on dual careers in sport has grown into an interdisciplinary body of knowledge, and it keeps expanding. Between 2012 and 2026 the field was found to move from marginal output to sustained production, carried for the most part by cooperation across borders, while the conceptual center of the literature shifted from career transitions and performance toward psychological well-being, identity, social support, as well as thinking at the level of the environment. On this evidence, the dual career is best treated not as one strand in the life of an athlete but as a structure that covers several roles and life processes at once. Policy should follow the same logic. Support arrangements that attend to the academic, psychological, and social needs of athletes in balance, built jointly by education institutions, sport organizations, and employers, offer the most direct route to a dual career that can be sustained.

Limitations

Coverage was confined to the Web of Science Core Collection, to the article as a document type, and to publications in English, so work indexed elsewhere, work published in other formats, and work written in other languages all sit outside the corpus. Variants of keywords were reported as retrieved instead of being merged, and the split between "dual career" and "dual-career" shows how much difference a decision made at the indexing stage can produce. The values for country production count appearances of author affiliations cumulatively; they measure participation, not the number of articles. Data for 2026 cover roughly half the year. Citation-based indicators, moreover, favor older publications by construction, and the analysis cannot support conclusions with regard to the eventual influence of the newest work.

Recommendations

Three directions follow from the findings for researchers. Replication across Scopus and other databases, together with synonym lists that merge variants of keywords, would test whether the structure reported here holds and would repair the indexing splits noted above. The concentration on elite athletes leaves amateur athletes underrepresented, and it leaves adolescent populations as well as contexts outside Europe in the same position; primary studies in these groups would widen the empirical base that the widening of concepts already anticipates. Themes the maps show only in outline, among them digital learning environments and their place in the education of athletes, remain open for focused primary work before their weight in the field can be judged. For practitioners and for policy makers, the findings support integrated dual career arrangements in the spirit of the European guidelines: academic flexibility, psychological support, and career services organized in one channel instead of several, with universities, federations, and employers sharing responsibility for the whole development of the athlete.

Beyanlar / Declarations

Etik Onay ve Katılım Onayı / Ethics approval and consent to participate

Bu çalışmanın hazırlanması ve yazım sürecinde, "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" doğrultusunda bilimsel araştırma etiği ve atıf kurallarına uygun hareket edilmiştir. Araştırmada kullanılan veri toplama araçları, Dicle Üniversitesi Sosyal ve Beşeri Bilimler Etik Kurulu tarafından incelenerek etik açıdan uygun bulunmuştur (Etik Kurul Toplantı Tarihi: 28 Kasım 2025; Karar No: 516). Etik kurul kararı, 3 Aralık 2025 tarihinde Dicle Üniversitesi Rektörlüğü tarafından onaylanmıştır (Onay No: 1046752). Toplanan veriler üzerinde herhangi bir değişiklik veya tahrifat yapılmamış olup çalışma, değerlendirilmek üzere başka bir akademik yayın kuruluşuna gönderilmemiştir. Makale ile ilgili ortaya çıkabilecek her türlü etik ihlalden yazarlar sorumludur.

During the preparation and writing of this study, scientific, ethical, and citation rules were followed in accordance with the "Higher Education Institutions Scientific Research and Publication Ethics Guidelines." The data collection instruments used in this study were reviewed and approved by the Social and Human Sciences Ethics Committee of Dicle University (Ethics Committee Meeting Date: November 28, 2025; Decision No.: 516). The ethics committee decision was subsequently approved by the Rectorate of Dicle University on December 3,

2025 (Approval No.: 1046752). No alterations were made to the collected data, and this study has not been submitted to any other academic publication platform for evaluation. The authors accept full responsibility for any potential ethical violations related to this manuscript.

Veri Ve Materyal Erişilebilirliği / Availability of data and material

Bu çalışmanın bulgularını destekleyen veriler, makul bir talep üzerine sorumlu yazardan temin edilebilir. Veri setine yalnızca akademik amaçlarla erişim sağlanacak olup verilerin kullanımında özgün çalışmaya gerekli atıfların yapılması ve katılımcıların gizliliğinin korunması esas alınacaktır.

The data that support the findings of this study are available from the corresponding author upon reasonable request. The dataset will be accessible only for academic purposes, and any use of the data will recognize the original study and maintain the confidentiality of the participants.

Çıkar Çatışması / Competing interests

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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.

Yazar Katkıları / Authors' Contribution Statement

Tüm yazarlar; araştırmanın tasarlanması ve planlanması, veri toplama, verilerin analizi ve yorumlanması, makalenin hazırlanması, veri düzenleme, metodolojinin geliştirilmesi, ilk taslağın yazılması, metnin gözden geçirilmesi ve düzenlenmesi süreçlerine eşit düzeyde katkıda bulunmuştur. Tüm yazarlar makaleyi eleştirel bir bakış açısıyla değerlendirmiş ve makalenin nihai hâlini okuyarak onaylamıştır.

Contributed equally to the design and planning of the study, data collection, analysis and interpretation, manuscript preparation, data organization, methodology development, writing of the original draft, and review and editing of the manuscript. All authors critically reviewed the manuscript and approved the final version of the article.

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