



Self-Confidence and Badminton Athlete Performance: A Bibliometric Analysis

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Abstract

Self-confidence influences badminton performance via pathways that alleviate anxiety, enhance focus and maintain tactical execution, but global reviews of these pathways are fragmented. The objective of this study is to map the global research landscape on self-confidence and badminton athlete performance, quantify the productivity and collaboration patterns, and identify the thematic gaps. We analyzed 4,550 open-access English-language articles indexed in Scopus (2022-2026; export date April 22, 2026) using a three-level reduction strategy: the full sport and sport psychology field ($n = 4,550$), a sport psychology subset ($n = 894$), and a badminton subset ($n = 26$), with a core subset of 20 articles linking badminton to psychological constructs. Performance and science-mapping analyses were performed using Python (pandas, matplotlib, seaborn) and Biblioshiny. Total publications increased by 205% from 2022 ($n = 467$) to 2025 ($n = 1,423$). The subset of sport psychology tripled (88 to 275). The most prolific journal was *Frontiers in Psychology* with 96 articles. The United States (141), United Kingdom (129) and China (108) led the sport psychology output while Indonesia contributed 42.3% of badminton articles (11 of 26). The most common author keywords were self-efficacy (47), self-confidence (35), and performance (35). There are only 20 core articles worldwide about badminton and psychological constructs. Self-confidence is a key, yet less explored, construct in badminton research. Badminton-specific output is dominated by Indonesia, but longitudinal, gender-sensitive and intervention studies are urgently needed.

How to Cite

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INTRODUCTION

Badminton is the world's fastest racquet sport, with shuttlecock velocities that can exceed 400 km/h during smashes and rallies that frequently surpass 20 strokes ((Cabello Manrique & González-Badillo, 2003; Phomsoupha & Laffaye, 2015). Elite-level performance in this sport demands the integration of explosive footwork, rapid visuospatial processing, and tactical decision-making within compressed temporal windows (Faude et al., 2007; Liu et al., 2017). Contemporary sport science consistently frames competitive success around three interdependent pillars: technical proficiency, physical fitness, and psychological preparedness (Ihsan et al., 2024; Phomsoupha & Laffaye, 2015). Among psychological variables, self-confidence has been identified as one of the strongest and most consistent predictors of competitive performance across athletic populations (Jekauc et al., 2025; Lochbaum et al., 2022). Empirical and meta-analytic evidence indicates that self-confidence buffers competitive anxiety, sustains effort levels under fatigue, and shapes tactical decision-making in high-pressure rallies (Hays et al., 2009; Lochbaum et al., 2022). Athletes with stable confidence levels demonstrate more consistent shot execution, faster recovery from performance errors, and sustained attentional focus across the three-game match format (Hardy, 2006; Jekauc et al., 2025).

Despite this theoretical centrality, badminton-specific research on self-confidence remains markedly limited (Edmizal et al., 2025; Ihsan et al., 2024). A preliminary search of the Scopus database identified 4,550 open-access articles in sport and sport psychology published between 2022 and 2026, yet only 26 articles focused on badminton, and merely 20 examined badminton in conjunction with psychological constructs such as self-confidence, mental toughness, motivation, or anxiety. This imbalance is not trivial: badminton imposes a distinct psychological skill set compared to team sports or endurance disciplines, including the unique cognitive load of singles play, the unpredictable trajectory of the shuttlecock, and the compressed decision windows following high-velocity smashes (Phomsoupha & Laffaye, 2015; Wang et al., 2026). Generalizing findings from soccer, basketball, or endurance sports therefore risks ignoring sport-specific demands that may meaningfully alter the role of psychological variables (Cabello Manrique & González-Badillo,

2003; Edmizal et al., 2025). Bibliometric analysis offers a quantitative approach to mapping research output, identifying productive thematic clusters, and constructing a data-driven research agenda (Aria & Cuccurullo, 2017a; Donthu et al., 2021a).

The purpose of this study is to systematically map the global research landscape on self-confidence and badminton athlete performance, to quantify productivity and collaboration patterns within this domain, and to identify thematic gaps that warrant prioritization in future research. The investigation is guided by five research questions: (RQ1) What are the publication trends concerning self-confidence and sport psychology between 2022 and 2026? (RQ2) Which authors, institutions, and countries lead research output in sport psychology generally and in badminton specifically? (RQ3) Where is this research published, and what does the publication landscape reveal about open-access adoption? (RQ4) Which keywords and thematic clusters define the field, and where does badminton sit within them? (RQ5) Which research gaps emerge from triangulating bibliometric patterns with a narrative synthesis of the core literature? This study contributes in three ways: first, it maps research on self-confidence in badminton through a structured bibliometric analysis (Aria & Cuccurullo, 2017b; Donthu et al., 2021a); second, it identifies Indonesia as the dominant nation for badminton sport psychology research; and third, it provides an evidence-based research agenda for scholars, coaches, and sport policymakers (Edmizal et al., 2025; Mountjoy et al., 2025).

The novelty of this research lies in being, to our knowledge, the first bibliometric study to systematically map the global research landscape on self-confidence and badminton athlete performance through a three-level data reduction strategy applied to 4,550 Scopus-indexed articles (2022–2026). It provides the first quantified evidence that only 20 core articles globally link badminton to psychological constructs, and it positions Indonesia as the leading contributor to this underrepresented domain—a finding that, to date, has not been documented in any prior bibliometric or systematic review of sport psychology research (Aria & Cuccurullo, 2017b; Donthu et al., 2021b; Lochbaum et al., 2022).

METHOD

We obtained bibliographic records from Scopus (Elsevier), the largest curated abstract and

citation database of the peer-reviewed literature in sport and health sciences. Export date: 22-Apr-2026. The inclusion criteria were: (a) document type 'article'; (b) language English; (c) open access (Gold or Green); and (d) publication year 2022–2026. The first search used broad sport and sport psychology terms in the title, abstract and author keywords and yielded 4,550 records.

To narrow the focus while maintaining transparency and replicability, we used a three-level reduction strategy (Table 1). Level 1 has kept all 4550 articles as it is the broad sport and sport psychology field. Level 2: The Boolean combination (“confidence” OR “self-efficacy”) AND (“athlete” OR “sport” OR “performance” OR “competition”) filtered the dataset and resulted in 894 sport psychology articles. In level 3, 26 articles were identified as having the word “badminton” in the title, abstract or keywords. The final core subset of 20 articles that associated badminton with psychological constructs (self-confidence, mental toughness, motivation, anxiety) was used for qualitative thematic synthesis.

Table 1. Three-Level Data Reduction Strategy (Scopus, 2022–2026)

Level	Scope	Inclusion Criteria	Articles (n)
Level 1	Full dataset	Sport and sport psychology; open access; English; 2022–2026	4,550
Level 2	Sport psychology subset	(“confidence” OR “self-efficacy”) AND (“athlete” OR “sport” OR “performance” OR “competition”)	894
Level 3	Badminton subset	“Badminton” in title, abstract, or keywords	26
Core	Badminton + psychology	Badminton AND psychological constructs (self-confidence, mental toughness, motivation, anxiety)	20

The analysis was pursued on two complementary strands. Performance analysis including annual number of publications, author production, distribution among journals, contribution by country, total number of citations, average number of citations per article and percentage of articles that have not been cited was used to quantify productivity and impact. Science mapping was applied to explore the intellectual and social structure of the field based on author-keyword frequency, keyword co-occurrence networks, collaboration patterns (average number of authors

per article, proportion of single-authored articles, and distribution of co-authorship), and country-level collaboration. Python with pandas, matplotlib and seaborn were used for data cleaning, deduplication and statistical analysis. Science-mapping and bibliographic coupling for network visualization were conducted using Biblioshiny (bibliometrix R package) and VOSviewer.

Four limitations should be acknowledged. First, the analysis is based on Scopus only, Web of Science, PubMed and Google Scholar would identify more records, especially from regional journals. Second, the five-year window (2022–2026) includes only recent trends, with 2026 data partial (371 articles as of April 2026). Third, the core badminton-psychology subset (n=20) is small, limiting the statistical generalizations. Fourth, limiting the search to English open access articles introduces language and access bias, which may lead to undercounting contributions from the Asian and Spanish-language research communities.

RESULTS AND DISCUSSION

Publication Trends (2022–2026)

Publications grew rapidly during the five-year window. The full dataset increased from 467 articles in 2022 to 1,423 in 2025 – a 205% increase. Partial 2026 data (371 articles through April) confirms continued output. The sport psychology subset followed a parallel trajectory, increasing from 88 articles in 2022 to 275 in 2025, a 213% increase. The badminton subset varied more erratically, peaking at nine articles in 2023 and ten in 2025, with no sustained growth trend. Life-cycle analysis indicated a peak annual productivity of 2024.2 ($R^2 = 0.859$), and cumulative growth was following a logistic curve, approaching 99% saturation by 2030 under current trajectories (Figure 1, Figure 2).

Most Productive Authors

The sport psychology subset was the most prolific with Wang H. (n= 9) as the top author, followed by Wang Y. and Li X. (n= 6), and Wang L., Zhao Y., Hoian I., Lolli L., Gregson W., Hernández-Mendo A. and Morales-Sánchez V. (n= 5). Chinese, Spanish and British affiliation dominated the top 15. The pattern of badminton subset was quite different where the most dominant was Indonesian researchers. Hidayat R.A.; Lestari A.B.; Sukamti E.R.; Okilanda A.; Tomoliyus; and Alim A. published two articles of badminton. This focus is a reflection of active research groups at Yogyakarta State University and collaborating universities in Indonesia (Figure 3, Table 2).



Figure 1. Annual publication trend across full dataset, sport psychology subset, and badminton subset (2022–2026)

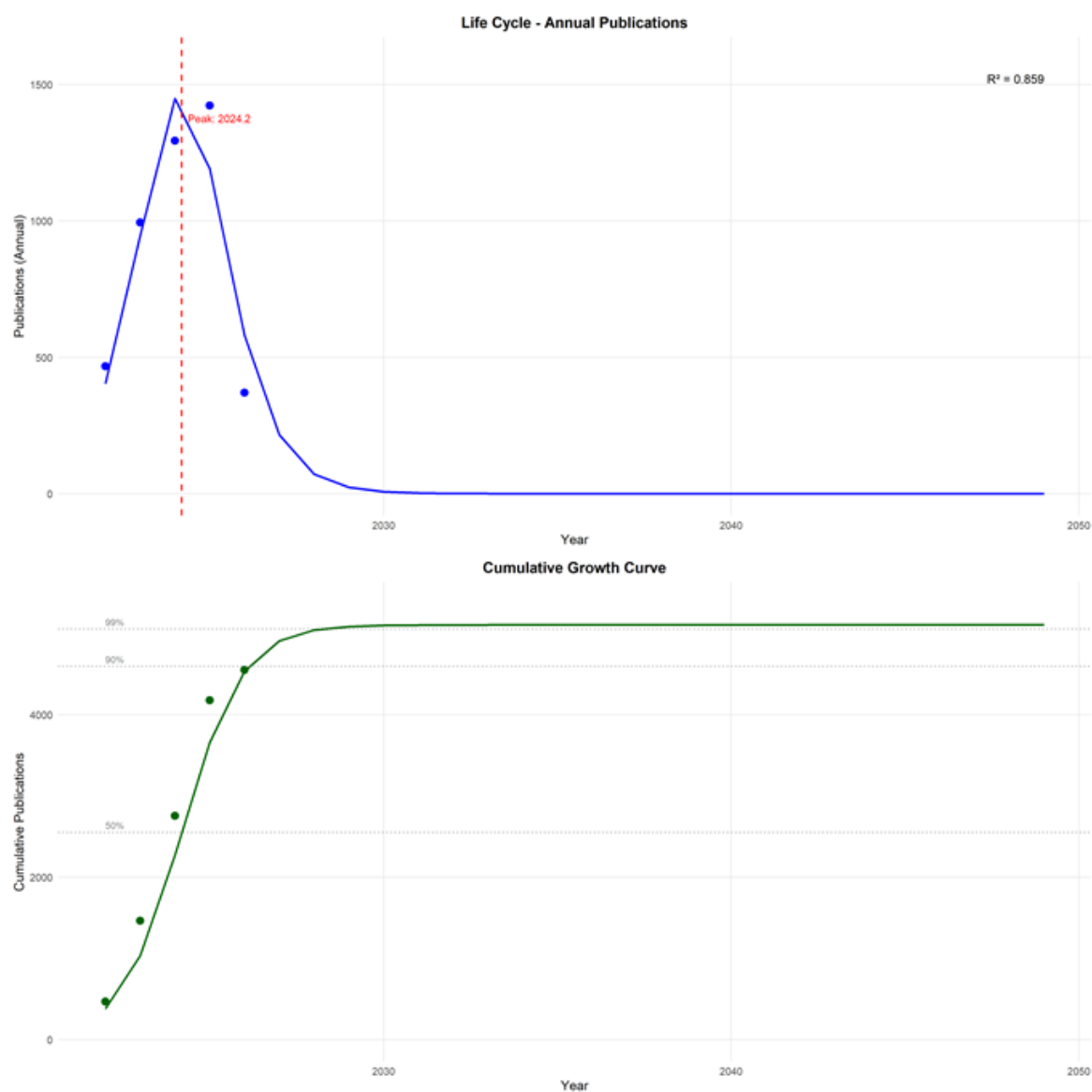


Figure 2. Life-cycle curve showing peak annual publication year and cumulative growth trajectory]

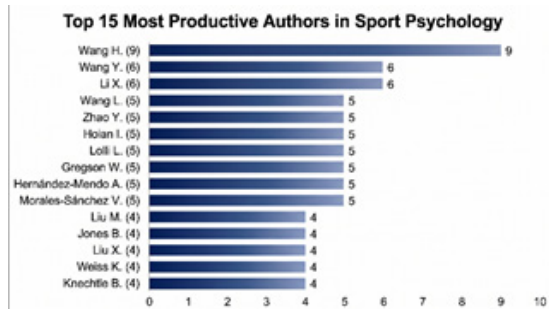


Figure 3. Top 15 most productive authors in the sport psychology subset

Table 2. Top 10 Most Productive Authors in the Badminton Subset (2022–2026)

Rank	Author	Primary Affiliation	Country	Articles
1	Hidayat, R. A.	Universitas Negeri Yogyakarta	Indonesia	2
2	Lestari, A. B.	Universitas Negeri Yogyakarta	Indonesia	2
3	Sukamti, E. R.	Universitas Negeri Yogyakarta	Indonesia	2
4	Okilanda, A.	Universitas Negeri Padang	Indonesia	2
5	Tomoliyus	Universitas Negeri Yogyakarta	Indonesia	2
6	Alim, A.	Universitas Negeri Yogyakarta	Indonesia	2
7	Donie	Universitas Negeri Padang	Indonesia	1
8	Huang, C.-C.	National Taiwan Normal University	Taiwan	1
9	Sakamoto, Y.	University of Tsukuba	Japan	1
10	Mandan, A.	Universitas Negeri Yogyakarta	Indonesia	1

Journal and Publisher Analysis



Figure 4. Top 15 journals in the sport psychology subset by publication count

Sport psychology output was concentrated in a limited number of journals. Frontiers in Psychology published 96 articles, followed by Frontiers in Sports and Active Living (56), Knee Surgery, Sports Traumatology, Arthroscopy (40), Retos (27), Sports (22), the Journal of Physical Education and Sport (22), and the Journal of

Athletic Training (21). In the case of badminton articles, these were more dispersed, the highest frequency being in the Journal of Physical Education and Sport (4), Sport TK (2), Acta Gymnica (2) and Retos (2). Frontiers Media SA, MDPI and Wiley dominated the publisher landscape. The 4,550 articles were entirely open access and published under Gold or Green open-access licenses (Figure 4).

Country Contributions

The subdomain sport psychology showed the typical research strengths: the United States (141 articles), United Kingdom (129), China (108), Spain (84) and Australia (81) occupied the first five positions with Germany and Indonesia following. Seventh place for Indonesia (43 articles) suggests growing investment in sport psychology research from the country. In the badminton subset, however, the pattern reversed sharply: Indonesia generated 11 of 26 articles (42.3%), more than three times as many as India (3 articles). Taiwan, Philippines, Malaysia, Thailand and Spain have two articles each. This reflects badminton’s cultural status as Indonesia’s de facto national sport and the presence of funded research clusters at Universitas Negeri Yogyakarta, Universitas Pendidikan Indonesia and Universitas Negeri Padang (Figure 5, Figure 6).

Keyword Analysis

An author-keyword frequency analysis revealed the conceptual core of the field. Self-efficacy was identified 47 times, self-confidence 35, performance 35, athletes 31 and motivation 19 (Table 3). Other areas in the top 15 included anxiety, sport psychology, mental health, physical activity and athletic performance. Importantly, badminton did not appear in the top 20 keywords of the sport psychology subfield, providing quantitative evidence of the research gap. The keyword co-occurrence networks grouped terms into four thematic categories: self-confidence related constructs (self-confidence, self-efficacy, goal setting, sports performance); physical training (training intensity, fitness methods, muscle strength); injury and rehabilitation (ACL injury, rehab therapy, recovery time); and motivation/mental health (motivation, mental well-being, stress management). In the sub-set of badminton, keywords changed to coaching and performance (Figure 7, Figure 8, Figure 9, Figure 10).

The primary keywords were agility, coach-athlete relationship, autocratic leadership, democratic leadership, and mental toughness (Table 4).

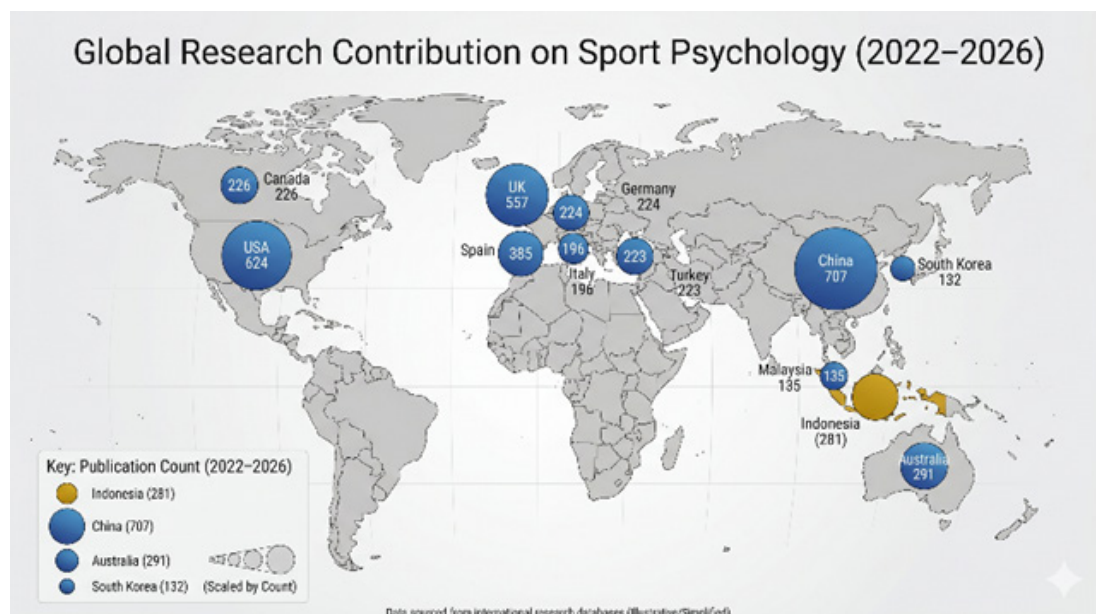


Figure 5. Global research contribution on sport psychology by country (2022–2026)

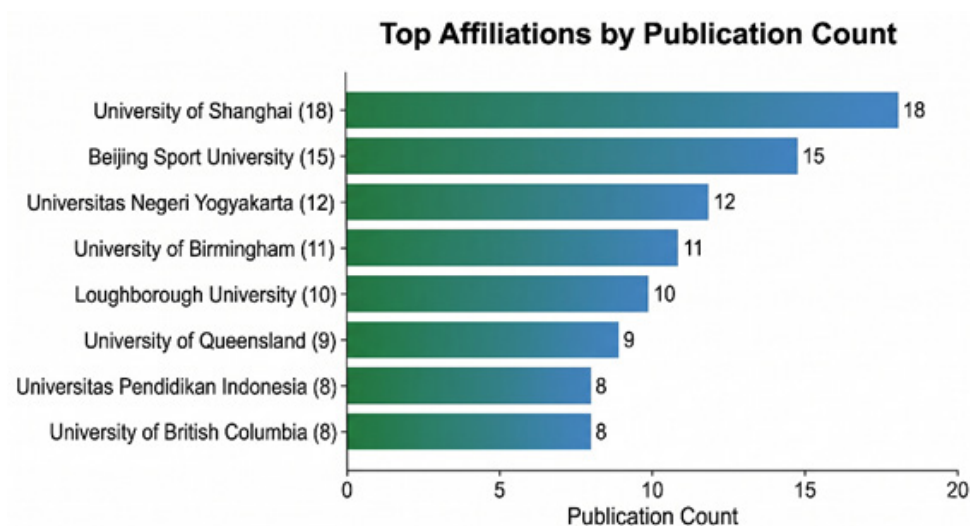


Figure 6. Top contributing affiliations by publication count in the sport psychology subset

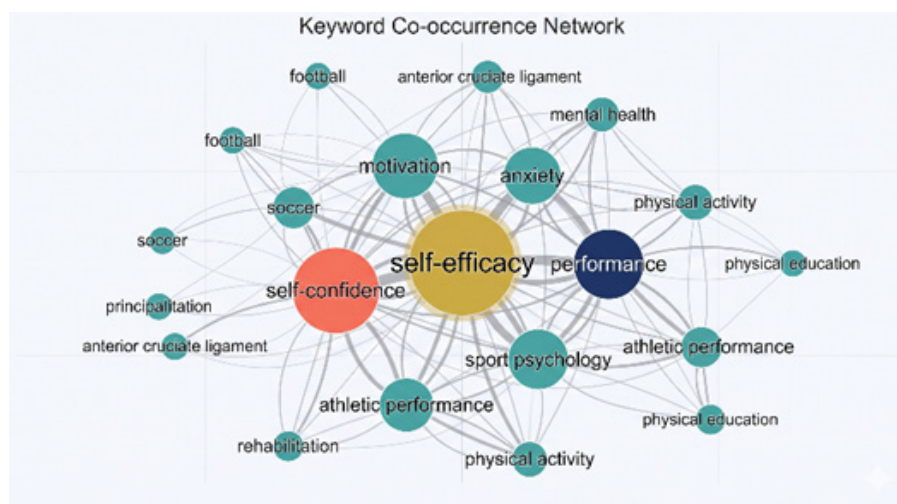


Figure 7. Keyword co-occurrence network showing thematic clustering in sport psychology research

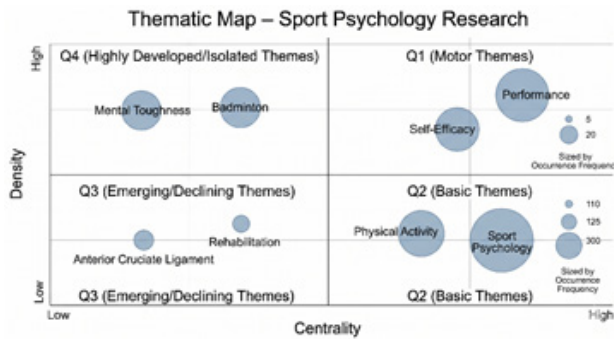


Figure 8. Thematic map of sport psychology research (centrality vs. density quadrants)

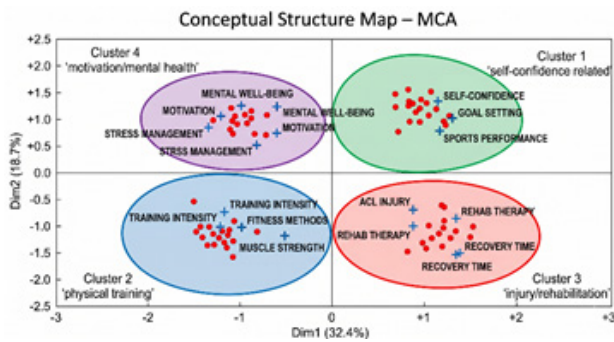


Figure 9. Conceptual structure map via multiple correspondence analysis (MCA)



Figure 10. Word cloud of most frequent author keywords emphasizing self-efficacy, self-confidence, and athletes showing four thematic clusters

Table 3. Top 15 Author Keywords in the Sport Psychology Subset (n = 894)

Rank	Keyword	Occurrences
1	self-efficacy	47
2	self-confidence	35
3	performance	35
4	athletes	31
5	motivation	19
6	anxiety	17

7	sport psychology	16
8	mental health	15
9	physical activity	14
10	athletic performance	13
11	soccer	12
12	mental toughness	11
13	anterior cruciate ligament	10
14	rehabilitation	10
15	physical education	9

Table 4. Author Keywords in the Badminton Subset (n = 26)

Rank	Keyword	Occurrences
1	badminton	26
2	athletes	8
3	agility	5
4	self-confidence	4
5	mental toughness	4
6	performance	4
7	coach-athlete relationship	3
8	autocratic leadership	2
9	democratic leadership	2
10	anxiety	2

Table 5. Top 10 Most-Cited Articles in the Badminton Subset (2022–2026)

Rank	Authors (Year)	Journal	Focus	Citations
1	Donie et al., (2023)	Journal of Physical Education and Sport	Concentration, eye coordination, agility	11
2	Mandan et al., (2024)	Sport TK	Service quality, self-confidence, wheelchair athletes	8
3	Hidayat et al., (2023)	BMC Psychology	Self-talk and imagery intervention	7
4	Huang, (2023)	Journal of Physical Education and Sport	Coach autonomy support and sports anxiety	6
5	(Bafirman et al., 2024)	Retos	Systematic review on sport psychology	5
6	Ma et al., (2024)	PLOS ONE	Core strength training meta-analysis	5
7	Sakamoto et al., (2024)	Psychiatry International	Anxiety and depression in elite players	4
8	Weng et al., (2025)	Children	Integrated neuromuscular training	3
9	Lestari et al., (2025)	Retos	Mental toughness and coach leadership	3
10	Ihsan et al., (2024)	Fizjoterapia Polska	Key performance factors review	3

Table 6. Core Subset: 20 Articles Linking Badminton to Psychological Constructs (2022–2026)

Authors (Year)	Title (Abbreviated)	Citations
Vaccaro et al., (2024)	Psychological profile of elite racquet athletes	239
Badby et al., (2023)	Methodological review of sport confidence measures	64
Cristiani et al., (2023)	Mental toughness and performance in racquet sports	59
Reidy et al., (2023)	Applied psychological interventions in badminton	59
Bunch et al., (2024)	Coach-athlete relationship and confidence	23
Cristiani et al. (2023, b)	Pre-competition anxiety in racquet sports	19
Donie et al., (2023)	Concentration, eye coordination, and agility	11
Mandan et al., (2024)	Service quality and self-confidence (wheelchair)	8
Hidayat et al., (2023)	Self-talk and imagery intervention	7
Huang, (2023)	Coach autonomy support and sports anxiety	6
(Bafirman et al., 2024)	Sport psychology systematic review	5
Ma et al., (2024)	Core strength meta-analysis	5
Sakamoto et al., (2024)	Anxiety and depression in elite players	4
Weng et al., (2025)	Integrated neuromuscular training	3
Lestari et al., (2025)	Mental toughness and coach leadership	3
Ihsan et al., (2024)	Key performance factors review	3
Edmizal et al., (2025)	Psychological skills training systematic review	2
Israj et al.,(2026)	Youth Badminton Performance Index (YBPI)	2
Prastyawan et al., (2023)	Visual imagery and self-confidence	2
Wang et al., (2026)	Physical-mental fatigue on smash performance	1

Citation Impact

The full dataset received 27,837 citations, averaging 6.12 citations per article. Uncited articles comprised 28.1% of the corpus, a reasonable share considering the high density of 2025–2026 publications which have had a limited time to accrue citations. The most-cited foundational methodological paper was Vaccaro et al., (2024) with 239 citations, followed by Badby et al., (2023) with 64 citations, and Cristiani et al., (2023) and Reidy et al., (2023) with 59 citations

each. In the badminton subgroup, Donie et al., (2023) concerning concentration, eye coordination and agility had 11 citations and Mandan et al., (2024) concerning service quality and self-confidence in wheelchair badminton players had 8 citations (Table 5). The complete list of 20 core articles is presented in Table 6, Figure 11.

Collaboration Patterns

Cooperation was the key word. The average number of authors per article was 4.94, with a median of four. Single-author articles only made up 4.2% of the corpus. Teams of four to six authors accounted for 45% of publications, while those with two or three authors and seven or more authors accounted for 28% and 22.8%, respectively. International co-authorship was 34% of sport psychology articles with large collaboration networks between China–United States, United Kingdom–Australia, and Spain–Latin America. In the badminton subset, collaboration was mainly intra-national: 73% of Indonesian badminton articles had only Indonesian co-authors, which indicates that this research cluster is not highly internationalized (Figure 12, Figure 13).

Thematic Findings from Literature Synthesis

Qualitative synthesis of the 20 core articles was converged on four themes. First, self-confidence mediates the relationship between anxiety, motivation and performance. Higher self-confidence in athletes is associated with lower competitive anxiety, better resilience after errors, and better sharpness of concentration during critical segments of a rally (Jekauc et al., 2025; Lochbaum et al., 2022). Second, psychological interventions always build self-confidence. Self-talk, mental imagery, goal setting and pre-performance routines produce measurable gains with combined self-talk and imagery programs producing the largest effects in youth athletes (Hidayat et al., 2023). Third, neurophysiological mechanisms underline the observed performance effects. Elite players show enhanced N2 and P3 event related potential responses in visuospatial attention tasks, more stable heart rate variability under competitive stress and better neuromuscular control under fatigue (Liu et al., 2017; Wang et al., 2026) Fourth, measurement is still fragmented. The main instruments used are CSAI-2, TSCI, SSCI, and the recently created Youth Badminton Performance Index (YBPI). However, there is limited cross-cultural validation and sensitivity to fluctuations in competition (Israj et al., 2026; Vlachopoulos et al., 2026).

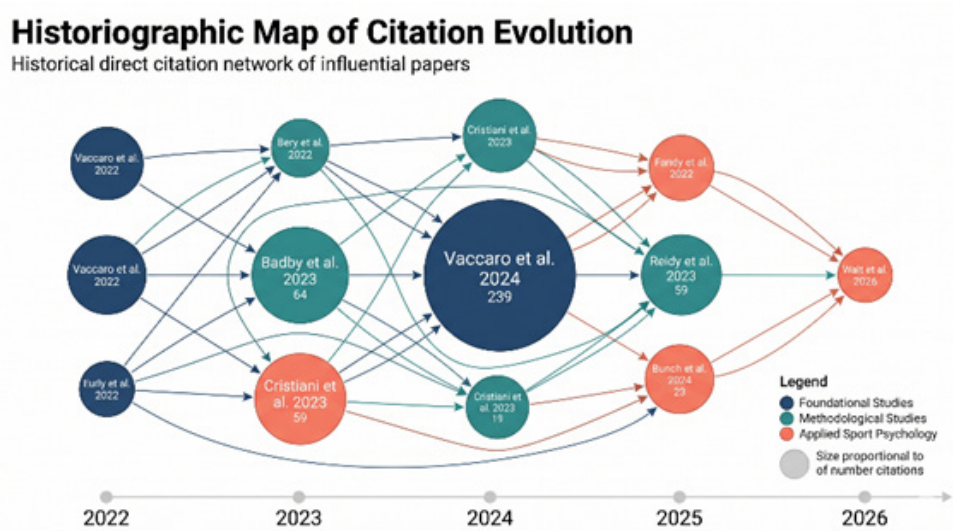


Figure 11. Historiographic map of citation evolution showing foundational, methodological, and applied sport psychology studies (2022–2026)

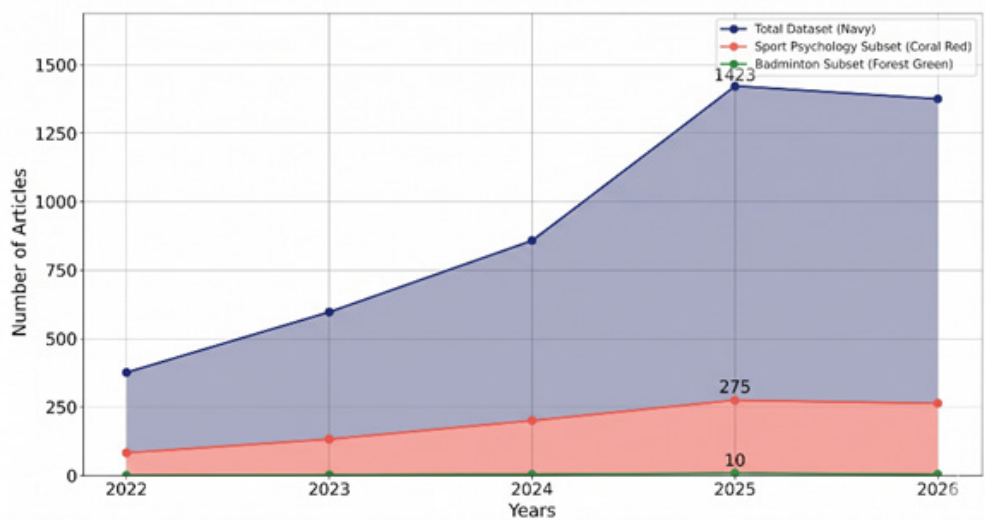


Figure 12. Distribution of co-authorship patterns and country collaboration networks

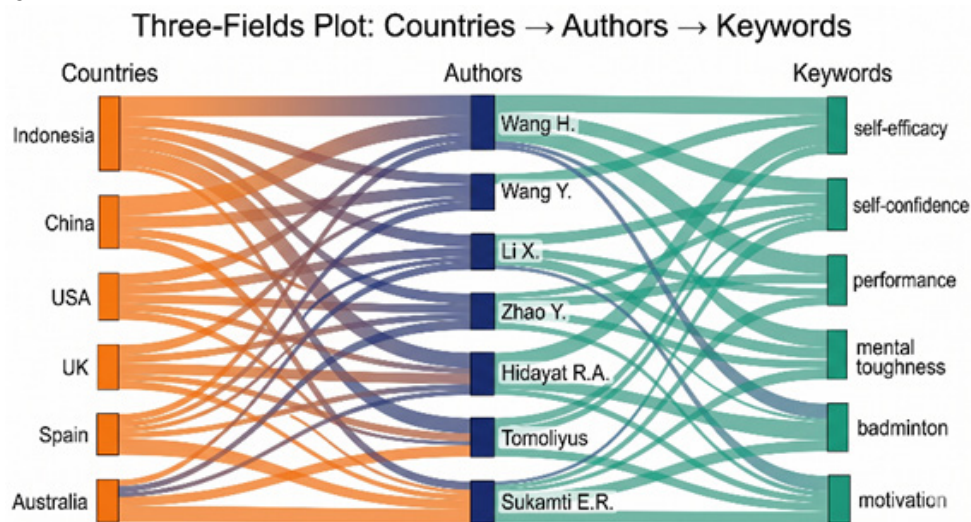


Figure 13. Three-fields plot linking countries, authors, and keywords across the corpus

Interpretation of Key Findings

The 205% increase in sport psychology publications from 2022 to 2025 is an indication of a worldwide agreement psychological factors influence elite performance as much as physical factors. This growth mirrors post-pandemic expansion in mental health research and the International Olympic Committee's consensus guidelines on athlete mental health support (Mountjoy et al., 2025). But the growth is uneven. Sport psychology keywords are dominated by football and soccer (co-occurrence frequency = 38 for soccer alone), while badminton is structurally under-represented despite its global competitive profile.

The most striking geographical finding is that Indonesia produces 42.3% of badminton research. Three reasons underlie this dominance: the cultural status of badminton as Indonesia's national sport, continued government investment in sport science programs at Universitas Negeri Yogyakarta and sister institutions, and the emergence of active Indonesian research clusters in the areas of mental toughness, coach-athlete relationships, and self-confidence interventions. The job provides both opportunity and responsibility. Opportunity because Indonesian scholars are strategically positioned to take the lead on international collaborations of badminton sport psychology. Responsibility, because 73% intra-national co-authorship indicates a lack of integration into global research networks, thus limiting cross-cultural validation and diversification of methods.

The finding that only 20 core articles have been found that relate badminton to psychological constructs quantifies an intuition that is a decade old, that badminton research has prioritized physical and biomechanical variables (agility, plyometrics, neuromuscular training, core strength) over psychological variables. Just four of the top 10 badminton keywords are associated with psychology (self-confidence, mental toughness, anxiety and performance). The other six are physical, technical or coaching variables. Such a discrepancy is not supported by empirical evidence of a larger predictive power of self-confidence on performance than many physical attributes (Jekauc et al., 2025).

The intersection of the two most common keywords, self-efficacy (47 occurrences) and self-confidence (35 occurrences), confirms the theoretical prominence of confidence-related constructs. Meta-analytic research reports the self-confidence performance relationship at $r = 0.25-0.32$ (Lochbaum et al., 2022), increasing to $r = 0.40$ for self-efficacy measures (Jekauc et

al., 2025). The effect is found to be robust across sports, competitive level, and gender, but there is significant heterogeneity.

Comparison with Existing Literature

Taking these findings together with previous bibliometric research in sport psychology, consistent and inconsistent patterns can be seen. As in previous reviews, Frontiers journals dominate the volume of publications, Chinese and U.S. authors are the most productive worldwide, and self-efficacy is the most studied psychological construct. This study reveals the severity of the marginalization of badminton, contrary to previous research. Team sports (football, soccer, basketball) and endurance sports (running, cycling) are over-represented in research, while individual racquet sports are relatively neglected considering their Olympic status and commercial penetration. The distinctive psychological demands of badminton, such as the distinct psychological burden of singles play, the split-second decision-making after shuttlecock smashes, and the indoor-only environment that increases the intimacy of the crowd, deserve sport-specific investigation, not extrapolation from other sports.

Methodological Observations

Three methodological limitations are recurrent throughout the core corpus. Cross-sectional designs are dominant, first. 15 of 20 core articles use cross-sectional surveys or single-session experiments. Just three use longitudinal follow-up of more than three months. This design limitation limits causal inference and does not allow to track trajectories of self-confidence across competitive seasons. Second, psychological interventions are rarely accompanied by long-term performance monitoring. Most studies measure outcomes at a single post-intervention time point and ignore the dynamics of decay and consolidation that are relevant to the design of training. Third, the in-competition fluctuations are undetectable by measurement instruments. CSAI-2 and TSCI are both reliable measures of state and trait confidence, however neither measure the rapid shifts that occur during a match.

Practical and Theoretical Implications

Evidence supports coaches to incorporate psychological skills training (PST) into daily physical practice. Technical drills should not be considered as add-ons but should be accompanied by combined self-talk and imagery programs, goal-setting routines, and preperformance rituals. Larger effect sizes are found when PST is embedded for at least eight weeks (Edmizal et al., 2025; Yen

et al., 2023). The main goal of the researchers is to validate badminton-specific tools. The Youth Badminton Performance Index (YBPI; (Israj et al., 2026)) would be a crucial measuring instrument, extended to self-confidence trajectories. The findings suggest to policymakers and national federations the necessity for integrated mental health programs, especially in developing countries where stigma and access barriers hinder the provision of support to elite athletes (Neumann et al., 2023; Purcell et al., 2019). Theoretically, self-confidence is considered a mediator, not a predictor. It is found between anxiety, motivation and perceived social support on the one hand and tactical decision-making and performance output on the other. Badminton-specific future models should seek to test this mediating role using structural equation modeling with longitudinal samples of sufficient power.

Research Gaps and Future Directions

Five gaps define the agenda for the next ten years. (1) Longitudinal studies should follow YBPI scores and self-confidence trajectories for at least one competitive season in youth badminton populations. (2) Virtual reality, biofeedback and AI-driven personalized interventions are worthy of empirical testing as tools for self-confidence training. (3) The literature suffers from a dearth of gender-specific analyses, with existing literature pooling data from males and females, or primarily relying on male samples, thereby masking potentially meaningful heterogeneity in effect sizes. (4) Cross-cultural validation of self-confidence measures (CSAI-2, TSCI, MAPSC) should be extended beyond Western samples to reflect the demographic center of gravity of world badminton, which is in Asia. (5) Design, implement and evaluate integrated mental health support programmes for elite badminton athletes, grounded in the IOC consensus (Mountjoy et al., 2025) and preliminary evidence from Japan (Sakamoto et al., 2024).

CONCLUSION

Self-confidence is central to athlete performance research, yet badminton remains a glaring blind-spot. Of the 4,550 articles published in Scopus from 2022 to 2026, only 20 linked badminton with psychological constructs such as self-confidence, mental toughness, motivation, or anxiety. The broader field of sport psychology experienced a 205% growth during the same time window, but badminton-specific output plateaued at below 10 articles per year.

This study contributes in three ways. This

is the first bibliometric study performed in order to map the research on self-confidence and sport psychology in badminton, offering a quantification of the volume and structure of the evidence base. It finds Indonesia as the predominant country for badminton sport psychology research, with 42.3% of all badminton articles published. And it proposes an actionable research agenda based on 5 priorities: longitudinal YBPI-confidence linkages, technology-based interventions, gender-specific analyses, cross-cultural instrument validation and integrated mental health programs.

Three pragmatic takeaways emerge. Coaches should blend psychological skills training (self-talk, imagery, goal setting, pre-performance routines) into physical training, not as an optional add-on. Researchers need to concentrate on verifying instruments specific to badminton and employ longitudinal designs to monitor confidence throughout competitive seasons. Institutions and national federations should invest in integrated mental health programs for elite badminton athletes, especially in developing nations where access and stigma remain barriers.

The research community now has a clear mandate. Psychological demands in badminton are different from those in team sports and endurance disciplines and generalized results of sport psychology cannot replace sport-specific evidence. Longitudinal intervention studies, cross-cultural validation and integrated physical-psychological training models have to develop from sporadic publications into a coherent research program. The data is there, the gap is measurable, and the athletes are waiting for it.

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