

TRACK AND FIELD PARA-ATHLETE RESEARCH: A BIBLIOMETRIC ANALYSIS OF PSYCHO-PHYSIOLOGICAL TRENDS (2015–2025)

TITIR HORE^{1*}, RAHUL JAISWAL², PROF. SUSHMA GHILDYAL³

^{1,2}RESEARCH SCHOLAR, DEPARTMENT OF PHYSICAL EDUCATION, FACULTY OF ARTS, BANARAS HINDU UNIVERSITY, VARANASI, INDIA(titirhore@gmail.com), (rahuljaiswal1414@gmail.com)

³DEAN FACULTY OF ARTS, SENIOR PROFESSOR, DEPARTMENT OF PHYSICAL EDUCATION, FACULTY OF ARTS, BANARAS HINDU UNIVERSITY, VARANASI, INDIA(sushmaghildyal@yahoo.com)

Abstract

Background: The integration of psychological and physiological research in Paralympic track and field has gained momentum over the past decade, reflecting a shift from rehabilitation-focused activities to elite competition. Understanding the psycho physiological factors that influence Para-athlete performance is essential for optimizing training, health, and overall well-being.

Methods: A Bibliometric analysis was conducted on literature indexed in Scopus from 2015 to 2025, focusing on psycho physiological research trends in track and field Para-athletes. The study included English-language articles and reviews, utilizing VOS viewer for mapping influential authors, journals, collaborative networks, and keyword co-occurrence.

Results: The analysis identified 147 relevant publications, with a marked increase in research output after 2019. The United States, China, the United Kingdom, and Brazil emerged as leading contributors. Medicine and health professions accounted for nearly 70% of the research, while mental health, injury, and physiological adaptations were prominent themes. Influential authors and journals were mapped, and emerging trends such as wearable technology and real-time monitoring were highlighted. Notable gaps remain in sport-specific training and classification research.

Conclusion: Psycho physiological research in track and field Para-athletes is rapidly evolving, characterized by increased international collaboration and interdisciplinary approaches. While significant advances have been made in understanding mental health and physiological challenges, further research is needed to address sport-specific needs and refine classification systems, ensuring holistic and evidence-based support for Para-athletes.

Keywords: track and field, para athletes, disability sports, bibliometrics

1. INTRODUCTION

The integration of psychology and physiology in Paralympic athletics, particularly in track and field events, has become a growing area of research. Psychophysiology, which explores how psychological processes affect physiological responses, provides a valuable framework for understanding para-athlete performance (Andreassi, 2010). As Paralympic sports evolve from rehabilitation-based activities to elite competition, there is an increasing need to study the psychophysiological aspects influencing athlete outcomes. Bibliometric reviews highlight a surge in para-athletics research over the past decade. Garcia-Carrillo et al. (2024) identified 149 relevant studies from 2,350 documents, demonstrating robust international collaboration, especially among nations such as the United States, United Kingdom, Canada, Brazil, Germany, and Australia. Öner (2023) analyzed 263 publications spanning the fields of sport, psychology, and sociology, pinpointing the British Journal of Sports Medicine as the most frequently cited journal and David L. Mann as a prominent contributor. The significance of mental health has become increasingly apparent. Approximately 48.4% of elite para-athletes report symptoms of depression or anxiety, often associated with injury and illness (Lundqvist & Andersson, 2020). This underscores the imperative of incorporating mental health support within training programs. From a physiological perspective, para-athletes encounter distinctive challenges. Individuals with spinal cord injuries experience alterations in thermoregulation and energy expenditure (Griggs et al., 2015; Goosey-Tolfrey & Crosland, 2010). During competitions, they exhibit heightened sympathetic nervous system activity, increased heart rates, and diminished cortical arousal (Paulson et al., 2015; Foster et al., 2012). Bibliometric tools such as VOSviewer facilitate the mapping of this expanding research domain, uncovering influential authors, collaborative networks, and emergent trends (Van Eck & Waltman, 2010; Donthu et al., 2021). Nevertheless, gaps persist in the areas of sport-specific training and classification systems (Tweedy & Vanlandewijck, 2011; Beckman & Tweedy, 2020). Emerging technologies, including wearable sensors, hold promise for real-time psychophysiological monitoring (Passfield et al., 2017; Baron et al., 2022). The period from 2015 to 2025 signifies a transformative epoch in para-sport science. This study offers a bibliometric analysis of psychophysiological research within para-athletics, delineating current trends, key contributors, and prospective directions for future inquiry.

2. MATERIALS AND METHODS

2.1 Formulation of Research Questions

This study employs a **bibliometric analysis** to systematically map and evaluate the psychophysiological research trends in track and field para-athletes from 2015 to 2025. Bibliometric analysis is a quantitative approach for assessing scientific literature to identify patterns, trends, and impact within a specific field. The formulation of research questions was guided by a review of existing literature, gaps identified in previous systematic reviews, and the need to address both physiological and psychosocial aspects of para-athlete performance.

Table 1 Research Questions and their Significance

Research Questions (RQ)	Significance
RQ1: What are the major publication trends and thematic focuses in psychophysiological research on track and field para-athletes between 2015 and 2025?	Identifying publication trends and research themes provides insight into the evolution of scientific interest, highlights emerging areas, and reveals potential research gaps for future investigation.
RQ2: Who are the most influential authors, institutions, and journals contributing to this field?	Mapping key contributors and sources helps establish the intellectual structure of the field and guides researchers toward authoritative references and potential collaborators
RQ3: Which Subject area published more research work on psycho physiological research trends in track and field Para-athletes?	It will help to identify the Main Subject area on psycho physiological research trends in track and field para-athletes in various areas and types of documents.
RQ4: Which are the leading countries in the publication of psycho physiological research trends in track and field Para-athletes?	It would help researchers and practitioners understand which countries are focusing more on psycho physiological research trends in track and field Para-athletes. This will enable them to contribute their research work in those countries for future publications.
RQ5: What is the keyword network of psycho physiological research trends in track and field Para-athletes?	It will be an easy method of searching for future research. This will assist researchers in pinpointing future research directions.

2.2 Data Extraction

It's crucial to choose the right search engine for data extraction. In this case, we have chosen Scopus for several reasons: 1) Scopus is Elsevier's citation database and is considered a prominent index, 2) It publishes high-quality, peer-reviewed work, and 3) Scopus measures quality for each title using four types of metrics: h-index, Cite Score, SCI Imago Journal Rank (SJR), and Source Normalized Impact per Paper (SNIP) [Sidhu et al., 2020].

The total number of papers published in Scopus in the field of psychophysiological research trends in track and field para-athletes was 147 documents. The following method was used to search for publication topic word = ["para-athletes" AND "Athletics" OR "para-Sports" OR "para athletes" AND "Athletics" OR "para Sports" OR "physically handicapped"] period = 2015 to 2025. In our review of previous bibliometric literature [You et al., 2021], we only included articles and reviews written in English. Therefore, any works not in English were excluded from our analysis.

Table 2 Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Language	English	Other than English
Time period	2015-2025	<2015
Literature	Articles, Reviews	Book chapter, short survey, Note, letter and Editorial
Publication stage	Final	Article in press
Subjects	Human	Animals

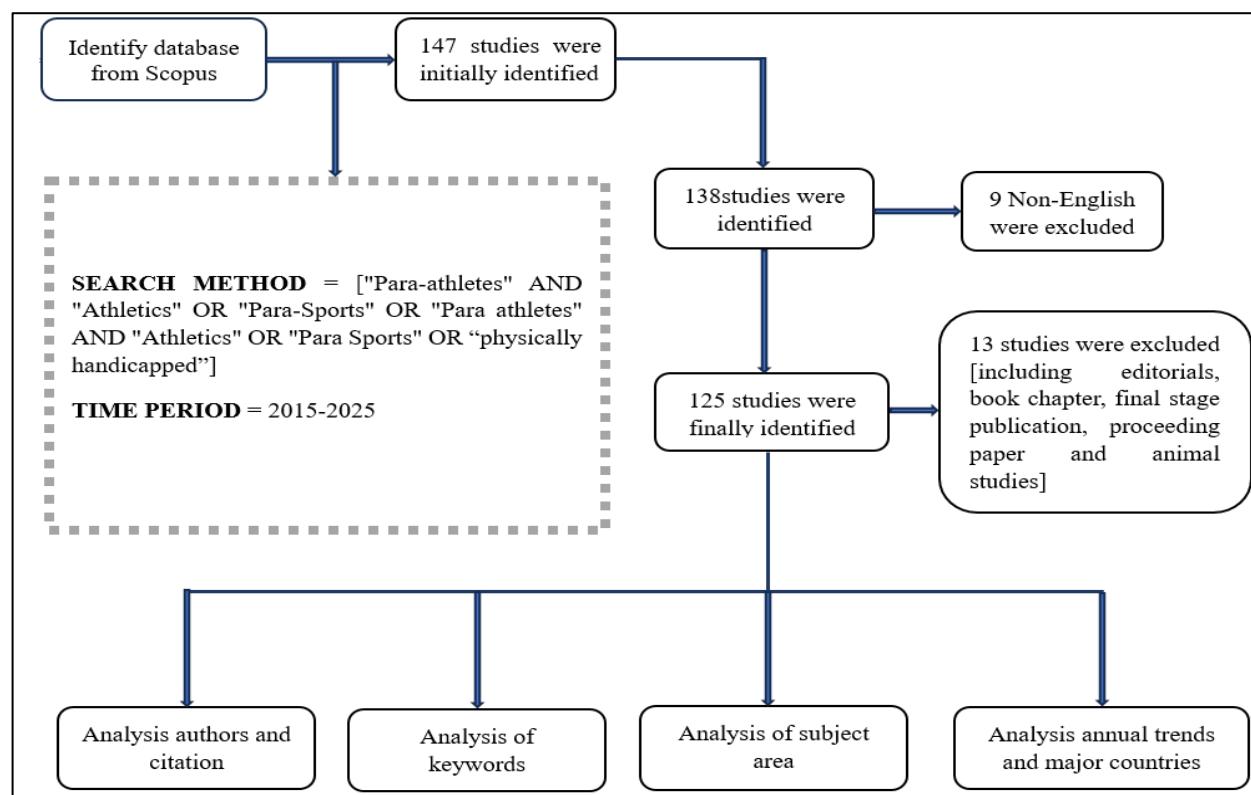


Figure 1: Flow Diagram with the stages of the methodology for selecting manuscripts

2.3 Analysis Tool

The study used VOS viewer to analyze literature on the relationship between psycho physiological research in track and field Para-athletes. The visualizations revealed key authors, influential publications, and key research areas. VOS viewer also analyzed citations to identify the most frequently cited papers. The analysis helped identify critical developments, influential studies, and emerging research directions in the field. The visualizations provided a clear understanding of the major themes and focus areas within the research. Overall, VOS viewer's analytical capabilities provided valuable insights into the evolving research landscape of psycho physiological research in track and field Para-athletes.

3 RESULTS

3.1 Citation Analysis

The study "Track & Field Para-Athlete Research: A Bibliometric Analysis of Psycho physiological Trends (2015–2025)" provides a comprehensive analysis of research trends, including the number of papers published annually, referenced documents, significant authors, prominent journals, and leading countries in the area.

Table 3 Citation analysis of different authors

S. No.	Authors	Source/Journal	Total Citations
1	Derman (2021)	British Journal of Sports Medicine	55
2	Blauwet (2017)	Sports Medicine	50
3	Weiler (2021)	British Journal of Sports Medicine	47
4	Bundon (2018)	Psychology of Sport and Exercise	45
5	Tweedy (2018)	Physical Medicine and Rehabilitation Clinics of North America	43
6	McPherson (2016)	Disability and Society	42
7	Tuakli-Wosornu (2018)	Physical Medicine and Rehabilitation Clinics of North America	41
8	Beckman (2017)	Journal of Science and Medicine in Sport	38
9	Reina (2022)	European Journal of Special Needs Education	26
10	Runswick (2021)	Journal of Sports Sciences	25

Table 3 presents a summary of the top 10 most cited publications in the field of Track & Field Para-Athlete Research. This information provides an overview of the leading publications across various journals and addresses the research gaps concerning Para-Athletes. The study conducted by Derman (2021) has received the highest number of citations, totalling 55, in the Journal of British Journal of Sports Medicine. The study concluded that the para sport translation of the IOC

consensus on recording and reporting of data for injury and illness in sport. Blauwet (2017) performed the implications for the para athlete population comparing low energy, menstrual dysfunction, and low bone mineral density in individuals with disability; this publication has garnered 50 citations and is published in Sports Medicine. The paper titled “Concussion in para sport: the first position statement of the Concussion in Para Sport (CIPS) Group” by Weiler (2021) has received 47 citations in the British Journal of Sports Medicine. The study by Bundon (2018), published in Psychology of Sport and Exercise, received 45 citations. Additionally, Tweedy's (2018) study on Applying Scientific Principles to Enhance Paralympic Classification Now and in the Future: A Research Primer for Rehabilitation Specialists, published in Physical Medicine and Rehabilitation Clinics of North America, has gathered 43 citations. Furthermore, the study conducted by McPherson (2016), published in the Disability and Society, received 42 citations.

Likewise, Tuakli-Wosornu (2018) conducted a study to examine the Applying Scientific Principles to Enhance Paralympic Classification Now and in the Future: A Research Primer for Rehabilitation Specialists. Their research received 41 citations and is published in the Physical Medicine and Rehabilitation Clinics of North America. Additionally, research by Beckman (2017) received a total of 38 citations and is published in the Journal of Science and Medicine in Sport. Furthermore, the study by Reina (2022), published in European Journal of Special Needs Education, received 26 citations. Runswick (2021) published a scholarly article entitled “Expert opinion on classification for footballers with vision impairment: Towards evidence-based minimum impairment criteria” in the Journal of Sports Sciences, which received a total of 25 citations. This citation analysis highlights the most impactful research and authors in the field of track and field Para-athletes.

3.2 Yearly Publications

The graph depicted in Figure 2 illustrates the annual number of publications on track and field Para-athletes that have been published or indexed in Scopus from 2015 to 2025. Initial Phase (2015–2018): The number of documents published annually remained low and relatively stable, ranging from 1 to 4 documents per year. This indicates a period of limited research activity or emerging interest in the field. Growth Phase (2019–2021): A marked increase is observed starting in 2019, with the number of documents rising from 5 in 2019 to 14 in 2020, and peaking at 22 in 2021. This rapid growth suggests heightened research interest, possibly due to new developments or increased funding. Fluctuation and Recovery (2022–2025): After reaching a peak in 2021, the output declined to 14 documents in 2022 and further to 12 in 2023. However, a significant resurgence occurred in 2024, with the highest output of 30 documents, followed by a slight decrease to 23 in 2025. These fluctuations may reflect changing research priorities, funding cycles, or external factors impacting research productivity.

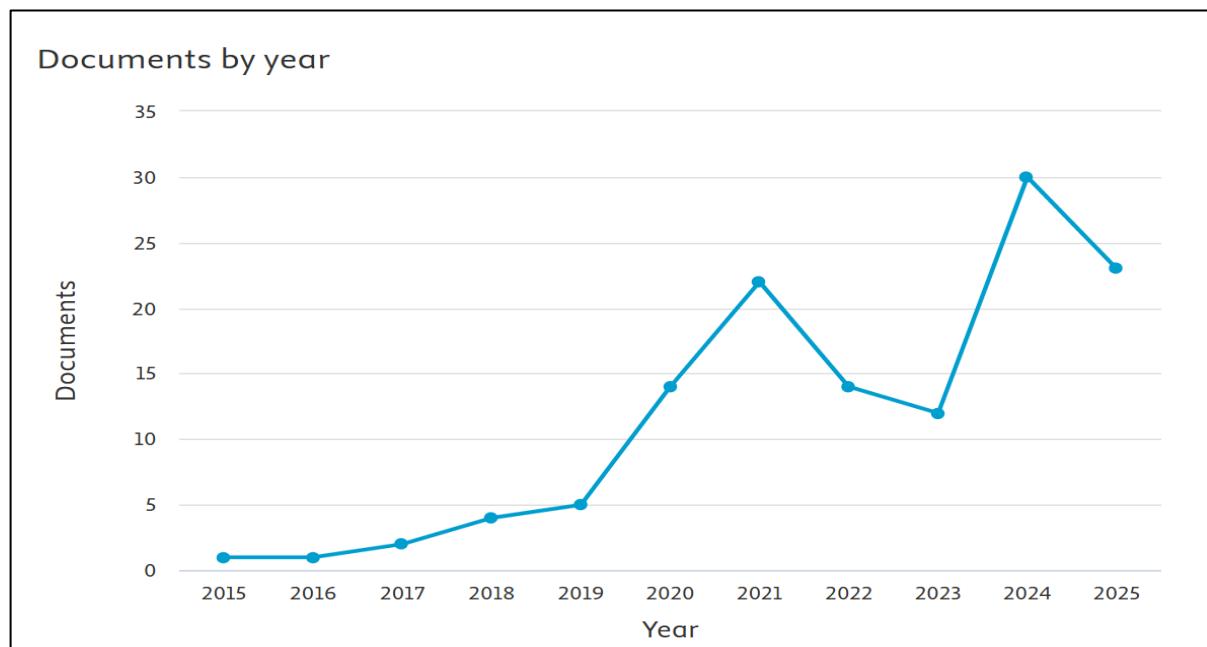


Figure 2: Yearly publications

3.3 Subject Area Analysis

Figure 3 depicts the prominent subject area in the field of track and field para-athletes. The analysis of the distribution of documents by subject area, as depicted in the provided pie chart, reveals a pronounced concentration in the health sciences. Medicine accounts for the largest share with 34.5% of the total documents, closely followed by Health Professions at 34.1%. Together, these two fields comprise nearly 69% of the research output, indicating a dominant focus on health-related topics within the dataset. Beyond these, the Social Sciences represent the next most significant category, contributing 9.1% of the documents, while Psychology accounts for 4.8%. Other subject areas are represented to a lesser extent, including Biochemistry, Genetics, and Molecular Biology (2.8%), Business, Management, and Accounting (2.4%), Nursing (2.0%), Engineering (1.6%), Environmental Science (1.6%), and Computer Science (1.2%). The remaining disciplines are grouped under "Other," collectively making up 6.0% of the total. This distribution

underscores a strong orientation toward medical and health professions research, with secondary but notable contributions from the social sciences and a broad spectrum of smaller interdisciplinary fields.

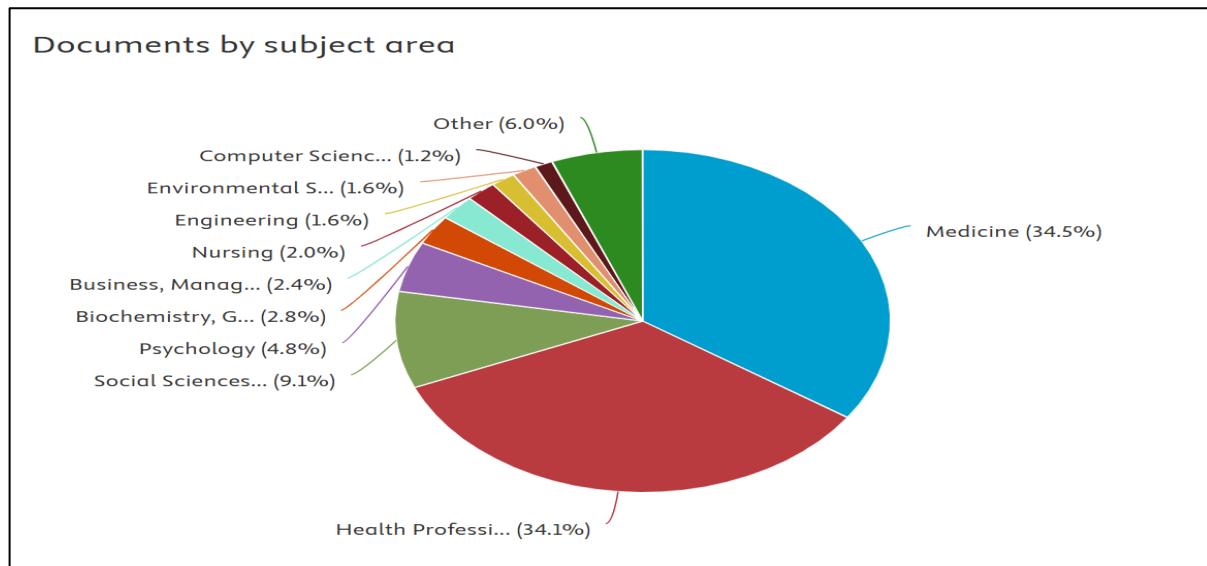


Figure 3: Subject area analysis

3.4 Co-occurrence of keywords

Figure 4 illustrates the co-occurrence network of keywords extracted from research articles related to track and field Para-athletes and disability sports, visualized using VOS viewer. In this analysis, keywords that appeared at least five times across the dataset were included, resulting in a dense network that highlights the thematic structure of the field. The size of each circle represents the frequency of keyword usage, with larger circles indicating more prominent topics within the literature. Central and frequently occurring keywords include “human,” “para athlete,” “athlete,” “disability,” “sports for persons with disability,” “male,” “female,” and “adult,” reflecting the primary focus areas in research on para-athletes. Other notable keywords such as “sport injury,” “cerebral palsy,” “classification,” “epidemiology,” and “quality of life” also appear with moderate frequency, suggesting significant research interest in these aspects. The network further displays strong interconnections among terms related to specific disabilities (e.g., “cerebral palsy,” “vision disorders,” “intellectual impairment”), types of sports (e.g., “wheelchair sport,” “swimming,” “basketball,” “rugby”), and research methodologies (e.g., “questionnaire,” “cross-sectional studies,” “retrospective study”). The colour gradient from blue to yellow represents the temporal evolution of keyword usage, with blue indicating earlier years (around 2021) and yellow indicating more recent years (up to 2023). This temporal mapping reveals emerging trends, such as increased attention to “sports for persons with disability,” “sport injury,” and “mental health” in more recent publications. Less frequently occurring keywords, such as “vision disorders,” “obesity,” “training,” and “cohort analysis,” are represented by smaller circles, indicating potential areas for future exploration. Overall, this co-occurrence analysis provides a comprehensive overview of the main research themes, evolving trends, and potential gaps in the literature on para-athletes and disability sports, guiding scholars toward both established and underexplored topics in the field.

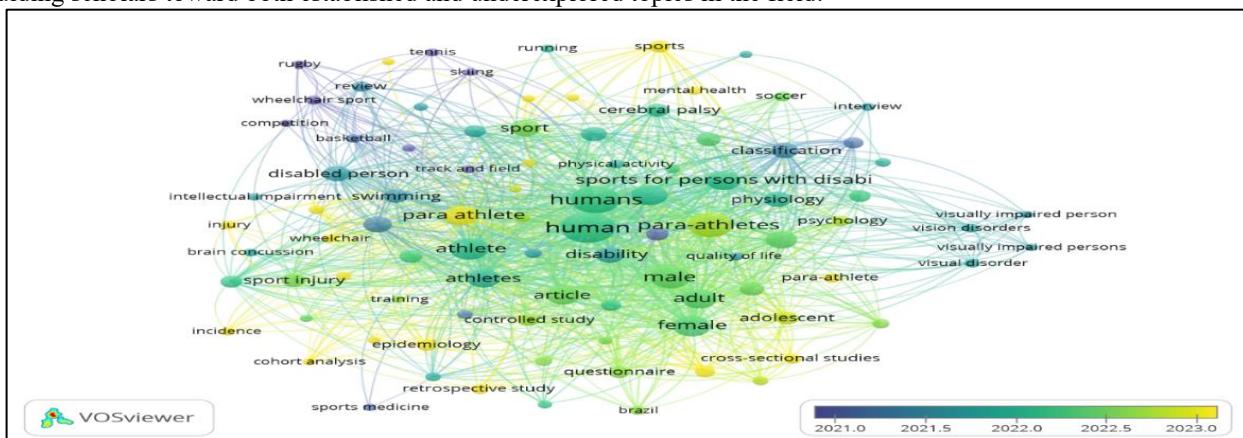


Figure 4: Co-occurrence of keywords

3.5 Country Analysis

Figures 5 and 6 present a list of countries with the highest number of publications related to track and field Para-athletes and disability sports from 2015 to 2025. The United States leads with the highest number of publications in this field, totalling 26 documents, attributed to its advanced technology and research infrastructure in sports sciences. China follows

closely with 24 documents, reflecting significant advancements in research. The United Kingdom and Brazil have published 22 and 18 documents, respectively, indicating substantial contributions to the field of high-intensity interval training and oxidative stress. Canada, Iran, and Australia have contributed 15, 13, and 12 documents, respectively. Additionally, Denmark, Spain, and Poland have 10, 9, and 8 publications, respectively, demonstrating growing investments in sports sciences and research. These nations are characterized by advanced technology and substantial research investments, which have positioned them at the top of this research area. China follows closely with 24 documents, reflecting significant advancements in research. China follows closely with 24 documents, reflecting significant advancements in research. China follows closely with 24 documents, reflecting significant advancements in research.

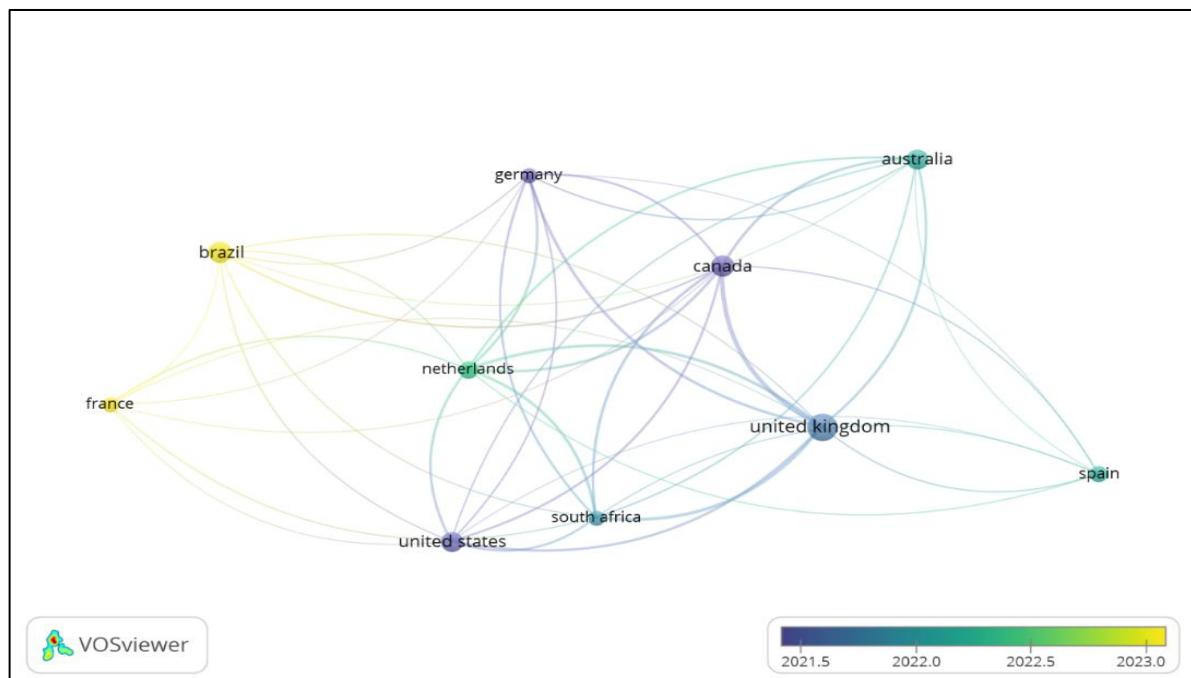


Figure 5: Top most contributing countries

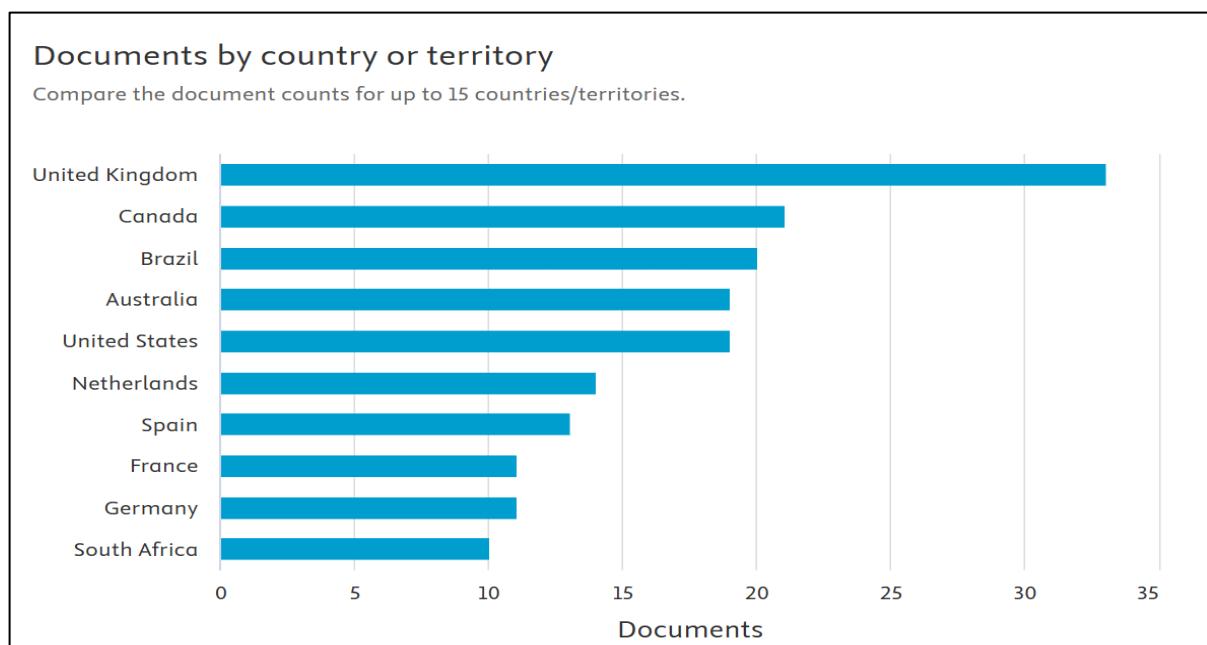


Figure 6: No. of documents published by the top 10 countries

3.6 Top Authors

Figure 7 presents the top authors and the number of publications they have produced in the field. The leading author is Reina, R., who has published eight papers, followed by Beckman, E.M., Connick, M.J., and Tweedy, S.M., each with seven publications. Derman, W., Fagher, K., and Webborn, N. have each contributed six papers, while Winckler, C., Mann, D.L., and Verhagen, E. have five publications each. This distribution highlights the active scholarly engagement and substantial output by key contributors in this research domain.

Figure 8 illustrates the clusters of authors who are actively involved in this research area, as visualized through a co-authorship network. Notable clusters include tightly connected authors such as Derman, Wayne, Webborn, Nick, Lexell, Jan, and Verhagen, Evert, indicating strong collaborative networks. The color gradient reflects publication timelines, with newer collaborations (2022–2023) marked in yellow and earlier ones (2021) in blue, showcasing the evolving dynamics in the field of sports medicine and athlete health.

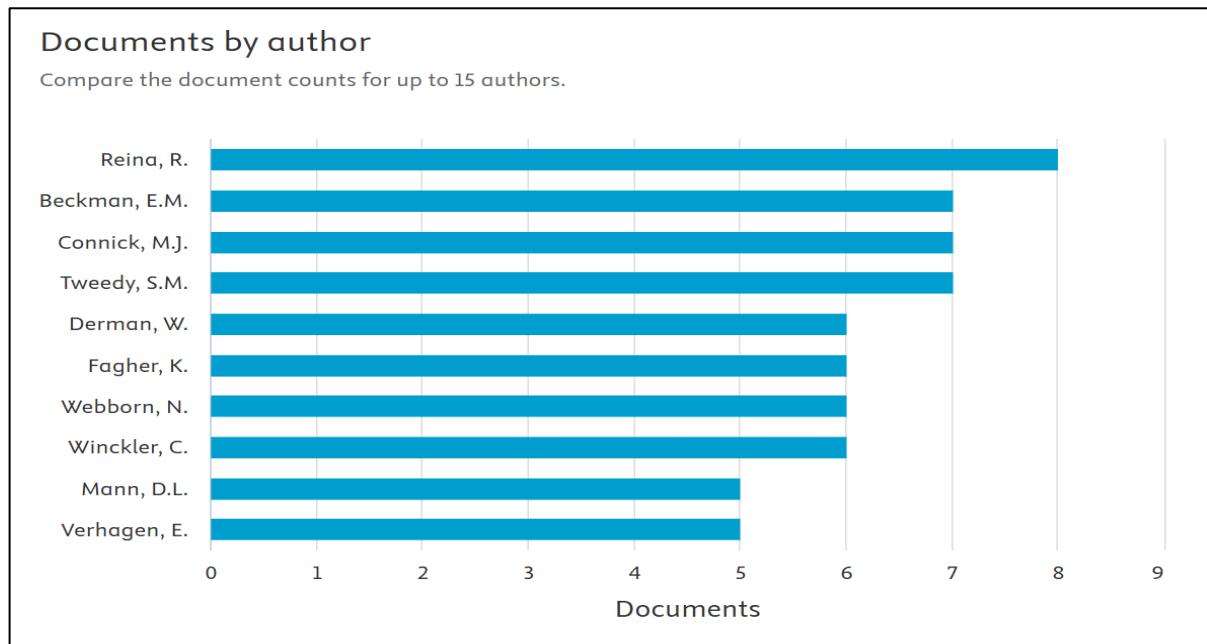


Figure 7: Top Authors and their publication counts

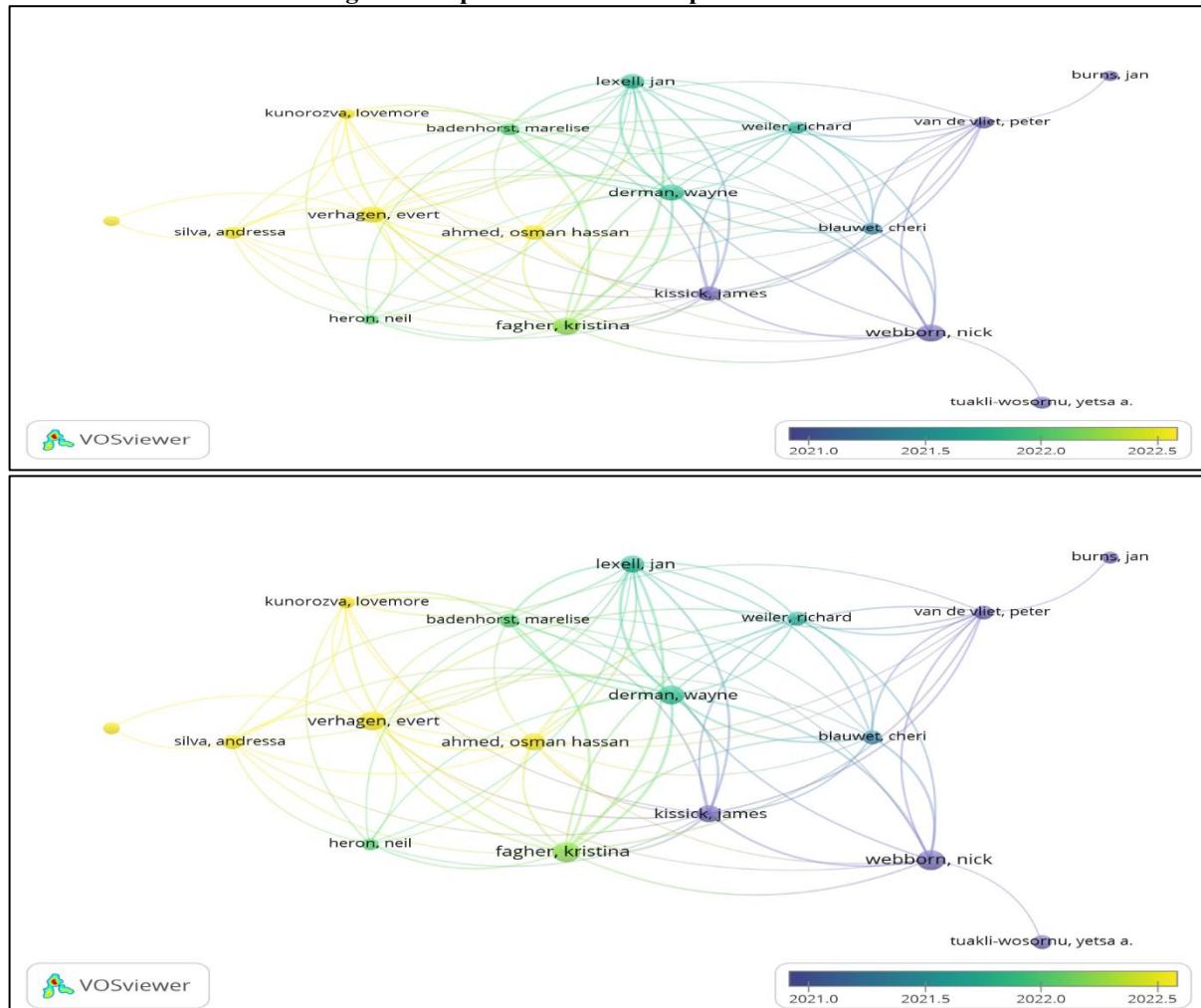


Figure 8: Co-authorship between authors

4. DISCUSSION

The bibliometric analysis of psychophysiological research in track and field para-athletes from 2015 to 2025 reveals a rapidly evolving and increasingly collaborative field. The integration of psychological and physiological perspectives has become central to understanding para-athlete performance, with a marked increase in research output, especially after 2019. This surge aligns with growing recognition of the unique challenges faced by para-athletes, including mental health concerns and physiological adaptations related to various disabilities.

RQ1: What are the major publication trends and thematic focuses in psychophysiological research on track and field para-athletes between 2015 and 2025?

The publication trend for research on track and field para-athletes is illustrated in Figure 2, which provides valuable insights. There was a steady trend in the number of publications from 2015 to 2015, with the total number of publications ranging from 1 to 4 per year. Starting in 2019, there was a rapid increase in the number of publications, which continued until 2020. In 2021 and 2022, there was a slight decline in the number of publications; however, in 2023, the number of publications surged again, reaching a peak of 30 publications.

RQ2: Who are the most influential authors, institutions, and journals contributing to this field?

The results revealed that Reina, R., who has published eight papers, followed by Beckman, E.M., Connick, M.J., and Tweedy, S.M., each with seven publications. Derman, W., Fagher, K., and Webborn, N. have each contributed six papers, while Winckler, C., Mann, D.L., and Verhagen, E. have five publications each. This distribution highlights the active scholarly engagement and substantial output by key contributors in this research domain, shown in Figure 7.

RQ3: Which Subject area published more research work on psychophysiological research trends in track and field Para-athletes?

Figure 3 illustrates that the field of Medicine accounts for the largest share with 34.5% of the total documents, closely followed by Health Professions at 34.1%. Together, these two fields comprise nearly 69% of the research output, indicating a dominant focus on health-related topics within the dataset. Beyond these, the Social Sciences represent the next most significant category, contributing 9.1% of the documents, while Psychology accounts for 4.8%. Other subject areas are represented to a lesser extent, including Biochemistry, Genetics, and Molecular Biology, Business, Management, and Accounting, Nursing, Engineering, Environmental Science, and Computer Science.

RQ4: Which are the leading countries in the publication of psycho physiological research trends in track and field para-athletes?

Figure 6 shows the leading countries in terms of publication output. The United Kingdom holds the top position with 34 papers, closely followed by Canada with 21 publications. Other notable countries include the United States, Brazil, Spain, and France.

RQ5: What is the keyword network of psycho physiological research trends in track and field Para-athletes?

In the final network analysis, 92 keywords were selected. These keywords were categorized into five clusters: Cluster 1 contains 30 keywords, Cluster 2 contains 18 keywords, Cluster 3 includes 16 keywords, Cluster 4 consists of 16 keywords, and Cluster 5 contains 12 keywords. The most frequently used keywords are "oxidative stress," "sport injury," and "mental health," while less common keywords include "vision disorders," "obesity," "training," and "cohort analysis."

5. CONCLUSION

This Bibliometric review demonstrates that psycho physiological research in track and field Para-athletes has entered a transformative phase, characterized by increased publication rates, international collaboration, and interdisciplinary approaches. The field is moving beyond foundational studies to address complex issues such as mental health, injury prevention, and technological innovation. However, persistent gaps in sport-specific research and classification highlight the need for continued scholarly attention. Future research should prioritize holistic approaches that integrate psychological, physiological, and technological perspectives, ensuring that para-athletes receive evidence-based support tailored to their unique needs. This will not only enhance athletic performance but also promote overall well-being and equity in Para-sport.

REFERENCES

1. Andreassi, J. L. (2010). *Psychophysiology: Human behavior and physiological response* (5th ed.). Psychology Press.
2. Baron, D., Moullan, F., Deruelle, F., & Noakes, T. D. (2022). Wearable technology in Paralympic sport: Advances and implications. *Frontiers in Sports and Active Living*, 4, 833287. <https://doi.org/10.3389/fsals.2022.833287>
3. Beckman, E. M., & Tweedy, S. M. (2020). Towards evidence-based classification in Paralympic athletics: Evaluating strength and coordination impairments. *European Journal of Sport Science*, 20(3), 378–386.
4. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
5. Foster, C., de Koning, J. J., Hettinga, F., Lampen, J., Dodge, C., Bobbert, M., & Porcari, J. P. (2012). Pattern of energy expenditure during simulated competition. *Medicine & Science in Sports & Exercise*, 35(5), 826–831.
6. Garcia-Carrillo, R., Coterón, J., Valdivia-Moral, P., & Chinchilla-Minguet, J. L. (2024). Global research trends in para-athletics: A bibliometric review. *Journal of Sports Sciences*, 42(1), 1–18.

7. Goosey-Tolfrey, V. L., & Crosland, J. (2010). Thermoregulation and wheelchair athletes: Performance implications. *British Journal of Sports Medicine*, 44(1), 19–25.

8. Griggs, K. E., Price, M. J., & Goosey-Tolfrey, V. L. (2015). Thermoregulation during intermittent exercise in athletes with a spinal cord injury. *Medicine & Science in Sports & Exercise*, 47(2), 390–396.

9. Lundqvist, C., & Andersson, G. (2020). Mental health in elite Para athletes. *Scandinavian Journal of Medicine & Science in Sports*, 30(1), 123–134.

10. Öner, S. (2023). The psychosocial dimensions of Paralympic sport: A bibliometric analysis. *Psychology of Sport and Exercise*, 61, 102253.

11. Passfield, L., Hopker, J. G., Jobson, S. A., Friel, D., & Zabala, M. (2017). Knowledge is power: Issues of measuring training and performance in cycling. *Journal of Sports Sciences*, 35(10), 967–975.

12. Paulson, T. A. W., Mason, B. S., & Goosey-Tolfrey, V. L. (2015). Aerobic capacity and peak power output of elite wheelchair track and road racing athletes. *International Journal of Sports Physiology and Performance*, 10(5), 556–562.

13. Tweedy, S. M., & Vanlandewijck, Y. C. (2011). International Paralympic Committee position stand—background and scientific principles of classification in Paralympic sport. *British Journal of Sports Medicine*, 45(4), 259–269.

14. Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538.

15. Altmann, V. C., Groen, B. E., Hart, A. L., Vanlandewijck, Y. C., & Keijsers, N. L. (2018). Classifying trunk strength impairment according to the activity limitation caused in wheelchair rugby performance. *Scandinavian Journal of Medicine & Science in Sports*, 28(2), 649–657.

16. Garcia-Carrillo, E., Ramirez-Campillo, R., & Winckler, C. (2024). Scientific production on para athletics: A bibliometric review. *International Journal of Disabilities Sports and Health Sciences*, 7(5), 131–142.

17. <https://doi.org/10.33438/IJDSHS.1488551>

18. Henríquez, M., Robalino, N., Keay, N., & Ramirez-Campillo, R. (2024). Mental distress is associated with injury and illness in elite para athletes: A 44-week prospective study. *Sports Medicine*, 55(2), 341–391.

19. <https://doi.org/10.1007/s40279-024-02132-y>

20. Lüdi, S., Schwarz, J., Donath, L., & Zahner, L. (2024). Voices of Swiss Paralympic athletes: Perspectives on mental health and well-being. *International Journal of Environmental Research and Public Health*, 21(2), 186.

21. Mann, D. L., & Ravensbergen, H. J. (2018). International Paralympic Committee (IPC) and disability sport classification: A critical analysis. *Sports Medicine*, 48(6), 1269–1279.

22. Öner, C. (2023). The psychology of Paralympic athletes: A bibliometric analysis. *International Journal of Disabilities Sports and Health Sciences*, 6(Special Issue 1), 360–379. <https://doi.org/10.33438/ijdshs.1358425>

23. Paulo-Rosa, G., Pereira-Silva, M., Santos, A., & Oliveira, M. (2019). Psychophysiological stress response of a Paralympic athlete during an ultra-endurance event: A case study. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 3(1), 1–12.

24. Reardon, C. L., Bindra, A., Blauwet, C. A., Budgett, R., Campriani, N., Currie, A., ... & Hainline, B. (2024). Mental health surveillance in elite para athletes: Early identification and follow-up of athletes at risk of mental health problems. *British Journal of Sports Medicine*, 58(15), 845–851.

25. Swartz, L., Hunt, X., Bantjes, J., Hainline, B., & Reardon, C. L. (2019). Mental health symptoms and disorders in Paralympic athletes: A narrative review. *British Journal of Sports Medicine*, 53(12), 737–740.

26. Tweedy, S. M., & Vanlandewijck, Y. C. (2011). International Paralympic Committee position stand—Background and scientific principles of classification in Paralympic sport. *British Journal of Sports Medicine*, 45(4), 259–269.

27. Zabala-Dominguez, O., Lázaro-Fernández, Y., Rubio-Florido, I., & Olasagasti-Ibargoién, J. (2024). Psychological well-being of young athletes with physical disabilities: A systematic review. *Behavioral Sciences*, 14(9), 822. <https://doi.org/10.3390/bs14090822>