



# Referees' Motivation: A Systematic Review and Bibliometric Analysis

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## Abstract

This article provides a comprehensive mapping and review of the literature on the motivation of referees and match officials. The primary aim is to delineate the structure of this emerging research field, with a focus on the key authors, publications, and journals contributing to the area. A systematic search was conducted for articles on the motivation of referees and match officials published between 2002 and 2023. After reviewing the abstracts, a stringent filter was applied based on predefined selection criteria. Following this process, 28 articles from WOS and Scopus were selected for in-depth qualitative and quantitative analysis. These articles constitute the core of our final database. The analysis culminated in a systematic review of the most influential literature on referees' motivation across various sports, accompanied by a detailed mapping of the top 28 studies, ranked by citation volume. In conclusion, this study offers valuable insights into the field of refereeing across multiple sports. By systematically identifying key authors and trends, it not only deepens our understanding of referees' motivation but also lays the groundwork for future research in this crucial yet underexplored area.

**Keywords:** Official performance, motivational factors, sports officials, sports psychology, literature mapping



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**Cite this article:** Vasilica, I., Silva, R., Costa, P., Figueira, B., Vaz, L. (2025) Referees' Motivation: A Systematic Review and Bibliometric Analysis. *Montenegrin Journal of Sports Science and Medicine*, 21 (2), Ahead of print. <https://doi.org/10.26773/mjssm.250908>

## Introduction

Motivation is widely recognized as a multidimensional construct central to understanding human behavior in sport. Its study provides critical insights into both the theoretical underpinnings and applied dynamics of athletic engagement and performance. Motivation helps account for contrasting behavioral patterns—such as one athlete striving for a world record, while another discontinues effort under comparable condi-

tions (Clancy, Herring, MacIntyre & Campbell, 2016). It is commonly defined as the internal drive that initiates, directs, and sustains behavior (Broussard & Garrison, 2004), reflecting core determinants of choice, persistence, and intensity of effort (Guay, Chantal, Ratelle, Marsh, Larose & Boivin, 2010).

Intrinsic motivation is driven by inherent interest, enjoyment, or satisfaction derived from task engagement. It manifests in autonomous behaviors such as exploration and

Received: 17 April 2025 | Accepted after revision: 09 June 2025 | Early access publication date: 15 July 2025 | Final publication date: 15 September 2025

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Conflict of interest: None declared.

skill mastery, often independent of external incentives (Deci, Koestner & Ryan, 1999). In contrast, extrinsic motivation is contingent upon external rewards or reinforcement, and while influential, is typically regarded as less effective in fostering sustained engagement and personal growth (Deci, Koestner & Ryan, 1999).

Despite its centrality in sport psychology, motivation remains a complex and context-sensitive phenomenon. The interplay of personal and situational variables—including social affiliation, identity, and external pressures—complicates its study (Mallett & Hanrahan, 2004). Motivation not only precedes performance but also emerges because of it, particularly in competitive environments. Empirical evidence indicates that elite-level performance is often associated with higher levels of self-determined motivation, emphasizing its critical role in sustaining excellence (Gillet, Vallerand & Paty, 2013).

Amid the evolving landscape of contemporary sport, football has experienced significant professionalization and commercialization, leading to heightened expectations and pressures across all stakeholder groups (Webb, 2018). Central to this evolution are referees, who now operate in increasingly scrutinized and demanding contexts. In many settings, officiating has transitioned into a full-time profession, necessitating advanced knowledge, resilience, and adaptability. Technological integration revised regulatory frameworks, and expanded support structures have redefined the functional expectations placed on referees (Webb, 2022).

Research on referees' motivation has emphasized both their commitment to the role and their intrinsic engagement with the sport. Early studies (Folkesson, Nyberg, Archer, & Norlander, 2002) highlighted high motivational profiles among referees, alongside a strong affective connection to the activity. Philippe, Vallerand, Andrianarisoa, & Brunel (2009) demonstrated that passion for officiating often persists even following performance errors, particularly among elite referees. More recently, Samuel, Tenenbaum, and Galily (2020) examined the destabilizing effects of the COVID-19 pandemic, revealing that enforced isolation and disrupted routines undermined both motivation and professional identity among referees—a trend also observed across broader athletic populations (Jukic et al., 2020; Henriksen et al., 2020).

Innovative contributions have also explored motivation in relation to cognitive engagement with the Laws of the Game. Vasilica et al. (2020, 2022) assessed motivational outcomes associated with RefereeGame, a gamified digital platform designed to improve rule acquisition. Findings indicated that interactive learning tools significantly enhanced intrinsic motivation compared to traditional study methods. Likewise, Armenteros et al. (2017) reported that elite referees demonstrated strong behavioral intention to adopt multimedia teaching resources, contingent upon perceived usability and enjoyment.

Given the conceptual significance and applied urgency of understanding motivation among referees, this study offers a systematic review and bibliometric analysis of the existing literature on this topic. By synthesizing research published between 2002 and 2023, this study identifies key contributors, theoretical frameworks, and knowledge gaps. The results aim to inform future investigations and practical interventions targeting motivation in the officiating domain—a

topic that remains underrepresented in the broader sport science literature.

## Methods

### Eligibility criteria

To ensure a comprehensive and methodologically robust selection of relevant studies, our systematic review included original research articles published in peer-reviewed journals, including those listed as "ahead-of-print." The eligibility criteria were subsequently structured using the Participants, Intervention, Comparators, Outcomes, and Study Design (PICOS) framework, as outlined below:

- Participants (P): Studies were included if they examined referees or match officials involved in organized sport, regardless of sport type (e.g., football, basketball, rugby) or competitive level (e.g., amateur, professional, elite, youth). No restrictions were placed on age or gender.

- Intervention (I): The review focused on studies investigating motivational constructs, including but not limited to intrinsic and extrinsic motivation, motivational profiles, goal orientations, and behavioral intentions. Studies that involved motivational assessments, educational programs, or game-based interventions targeting referee motivation (e.g., training tools, multimedia resources, or professional development programs) were eligible.

- Comparator (C): Comparators were not mandatory for inclusion. However, where applicable, studies comparing different groups (e.g., elite vs. non-elite referees, intervention vs. control conditions) were included to enrich the analysis of motivational differences across contexts.

- Outcomes (O): Eligible studies needed to report outcomes related to motivational constructs, such as levels of intrinsic/extrinsic motivation, motivational determinants, changes in motivation pre/post intervention, or factors influencing retention, dropout, or satisfaction in officiating roles.

- Study Design (S): Peer-reviewed quantitative, qualitative, or mixed-methods studies were included. These encompassed experimental designs, cross-sectional surveys, longitudinal analyses, and validated scale-based assessments. Review articles, conference proceedings, editorials, and book chapters were excluded.

To ensure the relevance and methodological rigor of the included studies, a thorough full-text review was conducted to confirm their eligibility in accordance with the predefined PICOS criteria.

### Selection Process

Two authors independently conducted the screening process, initially assessing titles and abstracts of all retrieved records to determine their potential relevance. Following this preliminary step, each author independently reviewed the full texts of the selected studies to assess their eligibility. In instances where discrepancies arose, a collaborative discussion was undertaken to resolve differences and reach a consensus. When agreement could not be achieved through discussion, a third author was consulted to make the final inclusion decision.

In December 2023, we gathered relevant information from two major databases, Web of Science™ Core Collection and Scopus, using the keywords "Referees Motivation" and "Match Officials Motivation." To ensure focus and rigor, the search

was refined to include only English-language articles classified as "Articles," excluding non-scientific material such as books and conference proceedings. This initial search yielded 51 articles from Web of Science and 92 from Scopus, totaling 143 articles before removing duplicates.

#### Search Strategy

The results from both databases were subsequently merged, and duplicate records were eliminated. We then applied eligibility criteria, narrowing our focus to articles from 2002 to 2023 that specifically addressed referee motivation in sports (using terms such as "Referees Motivation" and "Match Officials Motivation"). Articles on unrelated themes were excluded from further analysis. After reviewing each abstract—and in some cases, the full articles—we identified 28 relevant studies for detailed quantitative and qualitative examination.

#### Data Collection Process

Two authors independently performed the data extraction process to ensure unbiased assessments. In cases where discrepancies emerged, a third author was consulted to mediate and resolve the disagreements. The finalized set of articles was exported in BibTeX format from both databases. Using R Studio (version 1.2.5042), we removed any remaining duplicates and established a consolidated dataset. Following the methodological guidelines outlined by Aria and Cuccurullo (2017), we conducted a network analysis in R Bibliometrix 3.0, which was then followed by a systematic content analysis. To standardize the dataset, we addressed inconsistencies in punctuation, spacing, and author affiliation formats across journals, ensuring uniformity and reliability of data. Table 1 presents a visual outline of the data collection and refinement process, and table offers a comprehensive quantitative overview of the bibliometric dataset used in the systematic review.

**Table 1.** Description of data collection process.

Step 1: Search of key words in Scopus and WOS databases	Step 2: Merging databases and remove duplicates	Step 3: Bibliometric Analysis of content
n =143 articles	n=112 articles	n=28 articles
"Referees Motivation" OR "Match Officials Motivation"	To merging databases and remove duplicates we runned these lines of commands in R Studio: library(bibliometrix) MW<- convert2df(c("wosfile.bib"), dbsource = "isi", format = "bibtex") MS <- convert2df(c("scopusfile.bib"), dbsource = "scopus", format = "bibtex") M<-mergeDbSources(MW,MS, remove.duplicated=TRUE) save(M,file = "FinalDatabase.RData") library(bibliometrix) biblioshiny()	Bibliometric analysis with R Studio and Bibliometrix package after inclusion criteria application. Inclusion Criteria: Articles related about referees "Referees Motivation" OR "Match Officials Motivation"

**Table 2.** Database description.

Description	Results	Description	Results
Main information about data		Main information about data	
Timespan	2002:2023	AUTHORS	
Sources (Journals, Books, etc)	24	Authors	102
Documents	28		
Average years from publication	5,71	Author Appearances	115
Average citations per documents	12,39	Authors of single-authored documents	2
Average citations per year per doc	1,735	Authors of multi-authored documents	100
References	1338	AUTHORS COLLABORATION	
DOCUMENT TYPES		Single-authored documents	2
Article	27	Documents per Author	0,304
Review	1		
DOCUMENT CONTENTS		Authors per Document	3,29
Keywords Plus (ID)	90	Co-Authors per Documents	3,71
Author's Keywords (DE)	109	Collaboration Index	3,45

#### Assessment of Risk of Bias

For the randomized experimental studies included in this systematic review, risk of bias was assessed using the Physiotherapy Evidence Database (PEDro) scale, a validated and reliable instrument for evaluating methodological quality (Maher et al., 2003). The PEDro scale consists of 11 items that examine key methodological domains, such as random allocation, allocation concealment, baseline comparability, blinding of participants and assessors, and the adequacy of statistical reporting. Each criterion is rated as either fulfilled or not, with a

maximum possible score of 10 points, excluding the first item (eligibility criteria), which is not included in the final score. Two researchers independently performed the quality assessment for each included experimental study. Upon completion, they compared their evaluations, and in cases of disagreement, a third author was consulted to facilitate consensus and finalize the risk of bias rating.

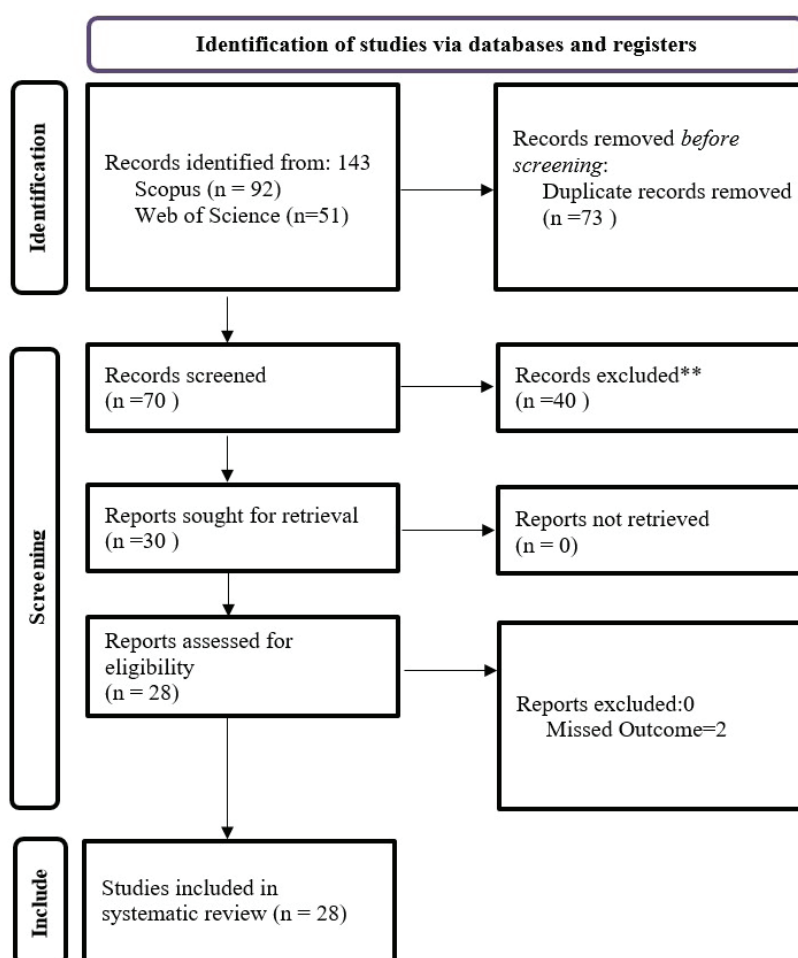
#### Results

Table 1 outlines the data extraction process employed in

this review. From an initial corpus of 143 articles identified across Scopus and Web of Science, rigorous deduplication and eligibility screening procedures resulted in the inclusion of 28 articles. This narrowing reflects both the specificity and scarcity of research explicitly focused on referees' motivation. The sharp reduction from initial identification to final inclusion (80% exclusion rate) highlights the fragmented and underdeveloped state of the field, underscoring the need for more focused empirical contributions to address this significant gap in sport psychology and officiating literature.

Table 2 presents an overview of the bibliometric dataset characteristics, offering insight into the structural features of the literature on referees' and match officials' motivation. The modest number of documents ( $n = 28$ ) across 24 different sources reflects a relatively fragmented research landscape.

The average of 12.39 citations per document and 1.74 citations per year per document points to a moderate but uneven academic impact. The high number of distinct authors ( $n = 102$ ) relative to the total publications, alongside a collaboration index of 3.45, suggests a predominantly collaborative but dispersed authorship network, with limited recurrence of leading contributors. Additionally, the prevalence of multi-authored articles (93%) and the presence of only two single-authored works indicate that this research domain is largely driven by interdisciplinary teamwork. The diversity of keywords (109 author keywords and 90 Keywords Plus) further underscores the thematic breadth and conceptual plurality of the field, though it may also reflect a lack of theoretical consolidation. These patterns align with the broader finding that this area of study, while growing, remains in an exploratory and dispersed phase of development.



**Figure 1.** Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram

Figure 1 presents the results of the initial database search. After applying the screening procedures based on title, abstract, and full-text review, 28 studies met the predefined eligibility criteria.

Table 3 provides a citation-based ranking of the 28 included studies, revealing key patterns in the scholarly influence of literature on referees' motivation. The most cited article, by Philippe et al. (2009), accounts for over 20% of total citations, signifying its foundational role. The top four articles together represent more than half (56.3%)

of total citations, indicating a high concentration of academic attention on a few seminal works. Moreover, 32% of these studies were published in Q1 journals, which reinforces the scientific credibility of key contributions but also points to limited dissemination in high-impact outlets overall. The relatively modest citation figures (mean = 13) further suggest that this research domain remains peripheral in mainstream sport science discourse, emphasizing the necessity of more integrative and widely cited studies moving forward.

**Table 3.** Authors and respective citations of the 28 most cited articles included in the systematic review

Position	Authors	Journal	SJR 2023	H Index	Quartile	Total of Citations	% of total citations
1º	(Philippe, Vallerand, Andrianarisoa & Brunel, 2009)	Journal of Sport and Exercise Psychology	0,68	H index 120	Q2	74	20,3%
2º	(Samuel, Tenenbaum & Galily, 2020)	Frontiers in Psychology	0,8	H index 184	Q2	47	12,9%
3º	(Folkesson, Nyberg, Archer & Norlander, 2002)	Aggressive Behavior	1,02	H index 110	Q1	43	11,8%
4º	(Warner, Tingle & Kellett, 2013)	Journal of Sport Management	1,17	H index 83	Q1	41	11,3%
5º	(Alonso-Arbiol, Arratibel & Gomez, 2008)	Revista de Psicología del Deporte	0,19	H index 35	Q4	20	5,5%
6º	(Giel & Breuer, 2019)	Sport Management Review	1,43	H index 78	Q1	17	4,7%
7º	(Livingston & Forbes, 2016)	International Journal of Sports Science and Coaching	0,74	H index 43	Q1	16	4,4%
8º	(Cunningham, Simmons & Mascarenhas, 2018)	Psychology of Sport and Exercise	1,15	H index 115	Q1	15	4,1%
9º	(Johansen, 2015)	Movement and Sports Sciences – Science et Motricite	0,21	H index 16	Q3	15	4,1%
10º	(Armenteros, Liaw, Sánchez-Franco, Fernández & Sánchez, 2017)	Education and Information Technologies	1,3	H index 76	Q1	13	3,6%
11º	(Hong, Jeong & Downward, 2019)	Managing Sport and Leisure	0,61	H index 43	Q2	9	2,5%
12º	(Muñoz-Arjona & Castillo-Rodríguez, 2020)	International Journal of Sport Psychology	0,35	H index 55	Q3	8	2,2%
13º	(Leitner, Daumann, Follert & Richlan, 2022)	Management Review Quarterly	1,83	H index 36	Q1	8	2,2%
14º	(Loghmani, Taylor & Ramzaninejad, 2018)	Managing Sport and Leisure	0,61	H index 43	Q2	7	1,9%
15º	(Adé, Ganière & Louvet, 2018)	Physical Education and Sport Pedagogy	1,27	H index 54	Q1	7	1,9%
16º	(Aguirre-Loaiza, Holguín, Arenas, Núñez, Barbosa-Granados & García-Mas, 2020)	Journal of Physical Education and Sport	0,33	H index 35	Q3	6	1,7%
17º	(Fowler, Smith, Nordstrom & Ferguson, 2019)	Managing Sport and Leisure	0,61	H index 43	Q2	5	1,4%
18º	(González-Ponce, Sánchez-Miguel, Amado, Chamorro & Pulido, 2012)	Cuadernos de Psicología del Deporte	0,3	H index 25	Q3	4	1,1%
19º	(Abdulgani, Mulyana & Badaru, 2021)	International Journal of Human Movement and Sports Sciences	0,25	H index 12	Q3	3	0,8%
20º	(Martínez-Moreno, Ibáñez-Pérez & Sánchez-Roca, 2021)	Journal of Human Sport and Exercise	0,25	H index 32	Q3	2	0,6%
21º	(Soriano, Ramis, Torregrossa & Cruz, 2019)	Revista de Psicología del Deporte	0,19	H index 35	Q4	1	0,3%
22º	(Samuel, Aragão e Pina, Galily, Travassos, Hochman, Figueiredo & Tenenbaum, 2023)	International Journal of Sport and Exercise Psychology	0,94	H index 47	Q2	1	0,3%
23º	(Aguilar, Castilles-Rodriguez, Chinchilla-Minguet & Onetti-Onetti, 2021)	PeerJ	0,62	H index 110	Q1	1	0,3%
24º	(Vasilica, Silva, Costa, Figueira & Vaz, 2022)	Sport Mont	0,18	H index 14	Q4	1	0,3%
25º	(Vicar, Koukal, Sasinka & Vakulikova, 2021)	Acta Gymnica	0,33	H index 15	Q3	0	0%
26º	(Vasilica, Silva, Costa, Figueira & Vaz, 2020)	Sport Mont	0,18	H index 14	Q4	0	0%
27º	(Lima, Camões, Clemente, de Oliveira Castro & Silva, 2022)	Journal of Physical Education	0,23	H index 14	Q3	0	0%
28º	(Philippe, 2016)	Staps	0,14	H index 11	Q4	0	0%
Total						364	100%



### Publications per year

A pronounced increase in publication activity is observed beginning in 2016, culminating in a peak in 2020 with five articles—likely influenced by heightened interest in sport psychology and officiating amid the COVID-19 pandemic. However, this surge was not sustained, with a decline to just one publication in 2023. The overall pattern reflects the still-emerging nature of this research domain and highlights the need for sustained scholarly engagement (Supplementary Figure 1).

### Publications by Journal

The results highlights the dispersion of the 28 included articles across 24 different journals. Notably, only *Managing Sport and Leisure* contributed more than two publications, followed by *Revista de Psicología del Deporte* and *Sport Mont*, each with two. The remaining journals each contributed a single article. This distribution underscores the absence of a central publication outlet in the field and reflects the fragmented and interdisciplinary nature of the research landscape. It also suggests limited prioritization of this topic in high-impact journals, indicating an opportunity for future consolidation and thematic specialization within sport psychology and sport management scholarship (Supplementary Figure 2).

### Most relevant authors

The results shows that no single author clearly dominates this research domain. A group of 14 authors each contributed to two publications, representing the highest frequency within the dataset. These include figures such as Alonso-Arbiol, Cruz, Figueira, Soriano, and Vasilica. Meanwhile, a broader set of authors contributed to only one publication. This distribution reflects a decentralized authorship pattern, characteristic of an emerging and fragmented field. The lack of prolific contributors suggests that the topic remains peripheral within broader academic agendas and emphasizes the need for sustained research programs and collaborative networks to consolidate expertise in the area (Supplementary Figure 3).

### Total Citations

The results reveals two major citation peaks—in 2009 (74 citations) and 2020 (78 citations)—corresponding to highly influential publications within those years. The initial spike in 2002 (43 citations) reflects foundational studies that have continued to receive recognition. In contrast, citation activity markedly declined after 2020, with a sharp drop to 6 citations in 2021 and only 1 in 2023. These trends suggest that while certain years produced seminal contributions, the field lacks consistent high-impact outputs. The data underscore the sporadic nature of citation impact and reinforce the need for sustained and cumulative scholarly efforts in this area of sport science (Supplementary Figure 4).

### Most Local Cited Sources

*Psychology of Sport and Exercise* (26 citations) and *Journal of Applied Sport Psychology* (24 citations) lead in citation frequency, suggesting their foundational role in shaping the field. They are followed closely by *Revista de Psicología del Deporte*, *Journal of Sport and Exercise Psychology*, and *Journal of Sport Management* (19 citations each). The presence of both high-impact international journals and specialized regional outlets highlights the multidisciplinary and globally dispersed nature of the literature. However, the modest citation counts

across sources also reflect the field's fragmentation and lack of a dominant publication venue (Supplementary Figure 5).

### Lexical Analysis and Linking Networks Between Authors

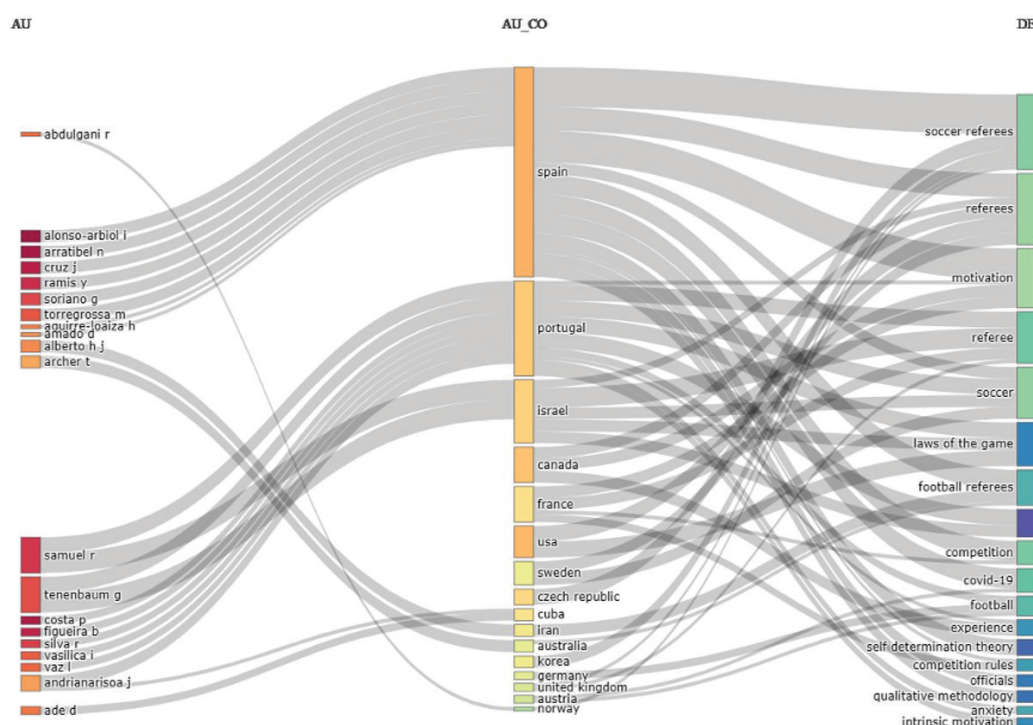
Leveraging R Bibliometrix 3.0 software, researchers conducted a comprehensive analysis of keyword frequency, author networks, and prevailing topics in sports science across multiple time periods. This investigation aimed to pinpoint prominent themes within the field and to map out the collaborative networks of authors examining the motivations of referees and match officials (Supplementary Figure 6).

Dominant terms such as motivation, referees, soccer, football, competition, and laws of the game indicate a strong emphasis on understanding motivational dynamics within the context of football officiating. Other recurrent terms—such as Covid-19, anxiety, decision making, and extrinsic motivation—reflect contextual and psychological dimensions explored in recent studies. The prominence of varied constructs suggests a multidisciplinary engagement with the topic, encompassing sport psychology, pedagogy, and performance sciences. This lexical analysis supports the conclusion that the literature is thematically diverse but lacks a consolidated conceptual framework (Supplementary Figure 7).

Regarding the interrelationships among key research topics, the network reveals four primary clusters: (1) motivation and soccer referees, linked through constructs such as self-determination theory and qualitative methodology; (2) soccer and referees, reflecting core terminology in the domain; (3) competition and referee, associated with themes of anxiety and performance; and (4) football referees, laws of the game, and competition rules, indicative of regulatory and cognitive dimensions of officiating. The size of each node reflects keyword frequency, while the thickness of the connecting lines denotes the strength of co-occurrence. This structure underscores the multifaceted nature of motivation research in officiating, bridging psychological, pedagogical, and contextual domains (Supplementary Figure 8).

Regarding the frequently co-cited authors, central nodes such as Philippe et al. (2009), Eisenberger (1986), and Kellett (2011) represent seminal works that bridge multiple subdomains, while peripheral clusters highlight more isolated or specialized strands of research. The several clusters reflects foundational contributions to officiating psychology and social dynamics (Taylor 1990, Rainey 1995, Dorsch 2007), the coping and performance (Anshel 1995). Other clusters appear more self-contained, indicating niche or nationally bounded discourses.

The Sankey diagram visualizes the relationships between key authors, their countries of origin, and the most frequently used descriptors in the included articles (Figure 2). Notable clusters emerge from Spain, Portugal, and Israel, which represent the most active national hubs in this research domain. Authors such as Samuel, Tenenbaum, and Vasilica are strongly associated with terms like motivation, referee, and laws of the game, indicating their substantive focus within the literature. The rightmost column reveals prominent themes such as soccer referees, competition, Covid-19, and self-determination theory, reflecting both theoretical and contextual orientations. The figure highlights how specific national and institutional contexts shape scholarly emphasis, and it underscores the interdisciplinary nature of the research—spanning sport psychology, regulation studies, and motivational theory.



**Figure 2.** Three-field plot (Sankey diagram) linking authors (AU), countries of affiliation (AU\_CO), and dominant keywords (DE) in the literature on referees' and match officials' motivation (2002–2023).

## Discussion

This systematic review and bibliometric analysis of literature on referees' and match officials' motivation reveals an emerging but fragmented field with considerable potential for growth. Although research output has increased in recent years, particularly around 2020, the overall volume, thematic consistency, and scholarly impact remain modest when compared to more mature subfields in sport psychology such as athlete burnout, coaching leadership, or performance anxiety.

From a theoretical standpoint, the findings can be interpreted through the lens of Self-Determination Theory (SDT) (Deci & Ryan, 2000), which posits that the quality of motivation—autonomous versus controlled—is crucial for sustained engagement and well-being. Many of the most cited works in the dataset, such as Philippe et al. (2009) and Samuel et al. (2020), implicitly reflect SDT's core constructs: autonomy, competence, and relatedness. Studies examining referees' passion (Philippe et al., 2009), identity disruption during the COVID-19 pandemic (Samuel et al., 2020), and engagement with gamified learning tools (Vasilica et al., 2020, 2022) align with SDT's emphasis on intrinsic motivation and self-regulatory mechanisms. However, this theoretical framework is seldom explicitly applied in the literature, pointing to a need for greater theoretical integration in future studies.

Additionally, Organizational Commitment Models (Meyer & Allen, 1991) offer a valuable perspective for interpreting the motivational dynamics of referees. Concepts such as affective commitment (emotional attachment to the role) and normative commitment (perceived obligation to officiate) are relevant to understanding why referees continue despite adversity, such as public criticism or administrative pressures. Research that incorporates these models could illuminate how structural and relational factors—such as federation support, perceived fairness, or organizational climate—mediate referee motivation and retention.

Comparatively, the bibliometric profile of referee motivation research lags behind better-established domains in sport psychology. Fields such as athlete motivation or coach–athlete relationships are characterized by greater publication density, a clearer set of core journals (e.g., *Psychology of Sport and Exercise*), and the presence of internationally recognized thought leaders. In contrast, the literature on referee motivation is dispersed across lower-impact journals, with limited author centrality or sustained research programs. This dispersion suggests a lack of consolidation and limits cumulative knowledge-building. The absence of consistent use of validated theoretical models further constrains the field's development.

Nonetheless, this review identifies promising avenues for growth. The increasing interest in technological interventions (e.g., RefereeGame) and psychological resilience during crisis periods (e.g., COVID-19) suggest that the field is responding to evolving contextual demands. However, greater theoretical anchoring and cross-study comparability are essential to move the field forward.

Future studies should systematically adopt SDT, organizational behavior frameworks, or ecological models to structure their inquiries. Moreover, comparative cross-sport and cross-cultural designs would help elucidate how motivational determinants vary by context. Such efforts would elevate the conceptual clarity and practical relevance of research on referees' motivation, contributing meaningfully to both sport psychology and sport management discourse.

## Limitations

This study is subject to several limitations. First, the literature search was confined to two databases—Web of Science and Scopus—and was conducted exclusively using English-language search terms. This methodological constraint may have restricted the comprehensiveness of the dataset by

excluding relevant studies published in other languages or indexed in alternative databases. The use of the terms "Referees Motivation" and "Match Officials Motivation" yielded 143 records, which were reduced to 28 eligible articles after deduplication and application of inclusion criteria.

Continuous monitoring and systematic consolidation of the literature are necessary for advancing scholarly understanding in this domain—particularly in relation to key themes within football refereeing. Mapping the existing knowledge base contributes to the development of theoretical models and practical interventions. Moreover, it provides a structured platform from which to identify underexplored areas and emergent topics of relevance to sport psychology and officiating studies.

To facilitate greater methodological robustness, future bibliometric analyses should consider expanding search protocols to include additional databases, multiple languages, and broader keyword frameworks. Such strategies would improve the generalizability of findings and support the construction of a more integrated and cumulative body of knowledge.

Within the scope of this review, several avenues for further investigation remain evident. The relatively small number of included articles limits the analytical depth and breadth of the citation-based rankings (i.e., the "Top 28" list). Comparative analysis between older and more recent publications could offer insights into temporal shifts in theoretical orientation, methodological preferences, and emergent research priorities. Furthermore, this review was restricted to peer-reviewed journal articles. Future work could be enhanced by incorporating other scholarly formats, such as conference proceedings, doctoral theses, and book chapters. Such expansion would likely capture a wider spectrum of conceptual and empirical contributions, enriching the understanding of referees' motivation across diverse contexts.

In conclusion, the topic of referees' and match officials' motivation remains an evolving field with considerable scholarly and applied significance. As the demands placed on referees continue to intensify in professional and amateur settings alike, a deeper, more systematic engagement with this literature is both timely and necessary.

## Conclusions

This study contributes a comprehensive overview of the current state of research on the motivations of referees and match officials through systematic review and bibliometric analysis. By identifying the most influential publications, authors, journals, and conceptual trends, the findings offer critical insight into a field that remains underdeveloped and fragmented. To advance this area, future research should prioritize longitudinal and experimental designs that examine how motivational constructs evolve over time and respond to interventions. Future studies should explore the differential impact of intrinsic versus extrinsic motivators across various levels of officiating (e.g., amateur, national, elite). Investigating the role of gender, age, and cultural context in shaping motivational dynamics also presents a valuable direction for enriching theoretical and practical knowledge. Additionally, these findings underscore the urgent need for referee education programs that foster intrinsic motivation, autonomy, and professional identity. Federations and sport governing bodies should consider implementing structured mentorship systems, interactive learning platforms (e.g., gamified modules

like RefereeGame), and psychological support services tailored to the pressures of officiating. Integrating motivational science into referee development curricula could enhance retention, well-being, and overall performance.

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