

Sport and religion: a mapping analytical research

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Article Info

Article history:

Received Nov 17, 2022

Revised May 20, 2023

Accepted Jun 12, 2023

Keywords:

Muscular christianity

Religion

Scientometric

Sports

ABSTRACT

This study uses scientometric analysis to comprehensively describe the descriptive parameters of publications about the relationship between sport and religion. Using ScientoPy, VOSviewer, and Biblioshiny software and datasets from two leading academic databases, Scopus and Web of Science, the current study can identify the most active scientific sources, keywords, and trending topics in sports and religion research. According to the findings, numerous types of research have been carried out on the correlation between sports and religion, and most of these papers have been published by scholars from the United States. The International Journal of the History of Sport and Sport in society has become the most active scientific journal. Furthermore, this study emphasizes the frequently utilized terms in the literature, explicitly "religion" and "sport." These keywords have protruded along with other terms that are gaining popularity in the study of sports and religion: "sports" and "muscular christianity." This information can be valuable to researchers and scholars and guide future research directions.

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1. INTRODUCTION

Linking sports with religion or spirituality is not a novel idea. It is a concept that has existed throughout human history and continues to be an essential part of many cultures and communities worldwide [1]. Sport can be a way of connecting with something bigger than ourselves and experiencing transcendent aspects of human existence [2]. Meanwhile, the similarity between collective identity and ownership lies in religion [3], [4]. In recorded history, some of the earliest forms of sport began to have their roots in religion and, in many ways, still resemble aspects of religion [5]–[8], such as elements of myth, ritual, belief, patience, and passion balanced with discipline [9].

Although there are some similarities between sports and religion regarding structure and community, they are fundamentally different in terms of their philosophical foundations and goals [10]. However, the relationship between sport and religion is complex and multifaceted and can strengthen as well as challenge dominant ideologies depending on how they are used [11], both of which have the potential to unite people in powerful ways and create a sense of community, belonging [12], self-esteem and identity [13], and peaceful coexistence [14]. However, there is a very real risk that sport and religion will

form what some have called an "unholy alliance" [15]. Thus, modern sport is a "substitute religion" like other cultural idols such as science, health, intellectualism, unhealthy perfectionism, commercialism, and materialism [16]. The influence of religion in sports has generated opportunities for both inspiration and conflict [17], including intersecting in various ways [18].

Religion, especially in the field of sports, is a subject that has not been studied much [19], [20], making the fields of religion and sports very worthy of attention and praise [21]. One reason is that religion is often seen as personal, making it difficult to study its influence on broader cultural trends and practices. Accordingly, the intersection between sport and religion has received academic interest in the last two decades [22], continues to grow [23], [24], and has been investigated with increasing frequency and intensity [25]. However, most of the studies are secular and/or tend to ignore the importance of studying the religious aspects of sports [26]. Sport, in turn, becomes a location where ethical values and promoting social justice [27] affirm and challenge the future importance of sport [28]. Therefore, several studies have examined the role of faith, religiosity, and how youth understand religious identity and sports participation [4], [29].

This study applies a scientometric review to examine critical ideas and publication trends in sports and religion research. Scientometrics is the creation of quantitative research techniques for the examination of the growth of science as a process for the transmission of knowledge [30]–[33]. It can also be described as scientific policy and communication in science [34], [35], while examining patterns and the evolution of scientific findings [36]. Utilising mathematical statistics, computing technology, and other mathematical techniques, scientometrics is the quantitative examination of the input, output, and process of scientific activity [37].

A scientific review has been carried out in the field of sports, among others: philosophy of sport and physical education [38], dislocated patella [39], scientific production of exercise science in Iran [40], sports and fitness [41], triathlon [42]. However, a significant limitation is the absence of statistical reviews in the fields of sports and religion. Therefore, this study is intended to fill a gap in the scientometric review of this field. Through scientometric analysis, this research seeks to bridge the gap in the literature and offer a more in-depth knowledge of the relationship between sport and religion. The study uses state-of-the-art software and databases to find patterns in research and publications and highlight the most active institutions, authors, and sources. The most important keywords in the study of sport and religion are also identified because they can explain this field's main themes and ideas. Ultimately, this study aims to advance the subject of sports science and religion and lay the foundation for further research in this field.

2. METHOD

Scopus and Web of Science (WoS) were selected as databases to collect data. This search was conducted on January 6, 2023. The search procedure was modified, and the keywords were used along with the search terms title on Scopus and topics on WoS: (sport*) AND ("religion*" OR "Islam*" OR "Christian*" OR "Buddh*" OR "Hindu*" OR "Jewish*") AND (EXCLUDE PUBYEAR, 2023). The gathered dataset comprised 279 documents from Scopus from 1973 to 2022 and 405 documents from WoS covering the period between 1977 and 2022. Scientometric analysis was performed using ScientoPy, VOSviewer, and Biblioshiny. The ScientoPy method analyses the latest developments and research patterns related to sports and religion. Utilizing VOSviewer, a bibliometric mapping is created to look at the co-occurrence of author keywords. Biblioshiny is used to explore how the subject area has developed. Thus, the mapping algorithm allows researchers to analyze specific data such as author, location, institution, citations, shared citations, and other refinement elements.

2.2. Data analysis

The original datasets that were collected resulted in 684 documents, and it is evident that this study has surpassed the minimum requirement of 300 papers for conducting bibliometric analysis [43]. This ensures that the analysis is reliable and valid, as a sufficient number of publications are available for analysis. Table 1 (see in Appendix) provides a brief overview of the preprocessing that was conducted for the study. Preprocessing is an essential step in the bibliometric analysis, as it involves cleaning and preparing the data for analysis, ensuring that the results are accurate and meaningful.

3. RESULTS AND DISCUSSION

3.1. Scientific sources

Interestingly, researchers must choose scientific sources carefully when publishing their papers. The selection of scientific sources can significantly impact researchers if their papers are accepted and published. It is great that study has identified the top ten scientific sources related to the fields of sport and religion, as this information can be helpful for researchers looking to publish their work in reputable journals. By

publishing high-quality scientific sources, researchers can increase the visibility and impact of their work and contribute to advancing knowledge in the field. Table 2 describes the top ten scientific sources related to sports and religion.

Table 2. Scientific sources

Source title	Total	AGR	ADY	PDLY	H-index
International Journal of the History of Sport	10	01.00	01.05	30.00	2
Sport in Society	10	-1.0	00.00	00.00	3
Journal of Sport History	9	00.00	00.00	00.00	5
International Review for the Sociology of Sport	8	00.05	02.00	50.00	3
Sport Ethics and Philosophy	6	00.00	00.05	16.07	2
Aschkenas-Zeitschrift Fuer Geschichte und Kultur der Juden	5	00.00	00.00	00.00	1
Sport and Christianity: Practices for the Twenty-First Century	5	-2.5	00.00	00.00	0
Understanding Sport as A Religious Phenomenon: An Introduction	5	00.00	00.00	00.00	0
Journal of Religion & Health	4	00.00	00.00	00.00	3
Religions	4	00.05	00.05	25.00	2

Information: average growth rate (AGR); average documents per year (ADY); percentage of documents in last years (PDLY)

3.2. Proactive authors

This analysis has selected the top five sports and religious writers. Numerous topics relating to physical activity, health, mental health, and psychology have been discussed. This suggests that the study of sports and religion is an area of significant interest for researchers and that there is a need for further research on issues related to sports, exercise, mental health, religion, and spirituality. In addition, the study may inspire readers and other researchers to explore this fascinating field further by highlighting the close relationship between religion and sports expertise, with Table 3 showing proactive authors.

Table 3. Proactive authors

Pos.	Author	Total	Affiliation	Country
1	Parker, A.	7	University of Gloucestershire	United Kingdom
2	Bain-Selbo, E.	6	Southeast Missouri State University	United States
3	Zhang, H.J.	6	Jiangxi Normal University	China
4	Sapp, D.G.	5	Stetson University	United States
5	Sekulic, D.	4	University of Split	Croatia

3.3. Most active country and institutions

A list of the countries with the most publications in this field has been compiled. Figure 1 lists the top 10 countries in terms of sports and religious research. The country analysis reveals which nations are actively researching sports and religious subjects. This analysis shows that, with 97 articles, the United States leads all other nations in publications about sports and religion. The United Kingdom (49), Iran (20), and Germany (15) are ranked second through fourth, respectively, in terms of the number of published documents. In keeping with contemporary fashion (2021 and 2022). 30% of publications devoted to sports and religion are published in Spain. Among other nations, France (25%) published publications in 2021 and 2022 that had more than 20%.

It's intriguing to learn that each author listed in the article is connected to a certain organisation and that ScientoPy processes this data in some way. It's also encouraging to learn that researchers can use this data to choose research residences, apply to academic programmes, or start research projects affiliated with the institution considered to be the most authoritative in the subject. This might enhance the institution's reputation and inspire other people to keep writing and applying for top jobs. It's crucial to remember, though, that when choosing a research residence or enrolling in a programme or project, factors other than an institution's reputation should be taken into account. To guarantee a rewarding and effective research experience, factors including the programme's quality, research facilities, and faculty mentorship should also be taken into account. The top ten active institutions are listed in Table 4.

3.4. The primary authors' keywords and keywords trending topic

The authors themselves select author keywords to represent the main ideas or concepts discussed in their publication. Researchers can use them to identify relevant articles and track the evolution of a research topic over time. Therefore, it's important to standardize and clean the author keywords to avoid duplication and ensure consistency in the analysis.

The development of the most well-liked hot themes in sports and religion is depicted in Figure 2. On the left-hand side of the graph, the total number of documents is plotted against the year of publication using a logarithmic scale. The Y-axis represents each topic's average growth rate (AGR) for 2021-2022, and the X-axis represents each topic's percentage of documents in the last years (PDLY). "Sports" is the trending topic with the biggest absolute growth, while "muscular christianity" has the largest relative growth. The graph displays ten popular themes based on the author's keywords. The co-occurrence of author keywords allows researchers to identify common themes and topics in the literature. VOSviewer software was used in this study to create a co-occurrence keyword network [44], [45]. A thesaurus file was used to eliminate duplicate terms from the database [46], and 626 keywords were included in the analysis [47]. These keywords included both author keywords and ISI's KeyWordsPlus [48]. A thesaurus file was created to account for alternate spellings, abbreviations, and singular/plural combinations [49]. The minimum number of occurrences for a keyword to be included in the analysis was three. The thesaurus file was then examined along with the retrieval metadata to identify common themes and topics. Figure 3 shows an overlay visualisation of the co-occurrence of authors' keywords.

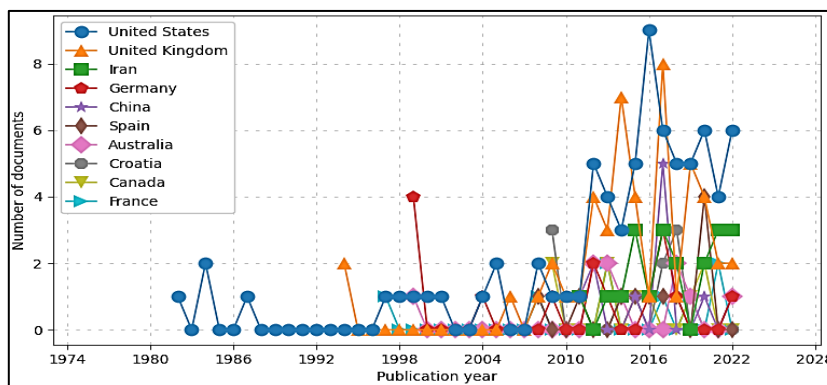


Figure 1. The top ten most active countries in the field of sport and religion

Table 4. Active institution

Pos.	Institution	Country	Total	AGR	ADY	PDLY	H-index
1	University Gloucestershire	United Kingdom	8	00.00	00.05	12.05	4
2	Baylor University	United States	7	-0.5	00.05	14.03	2
3	York St John University	United Kingdom	6	-0.5	00.00	00.00	3
4	Jiangxi Normal University	China	5	00.00	00.00	00.00	2
5	Stetson University	United States	5	00.00	00.00	00.00	0
6	University of Split	Croatia	5	00.00	00.00	00.00	4
7	Western Kentucky University	United States	5	00.00	00.00	00.00	0
8	Bangor University	Wales	4	00.00	00.00	00.00	2
9	Islamic Azad University	Iran	4	00.00	01.00	50.00	1
10	Teesside University	United States	3	00.00	00.00	00.00	1

Information: average growth rate (AGR); average documents per year (ADY); percentage of documents in last years (PDLY)

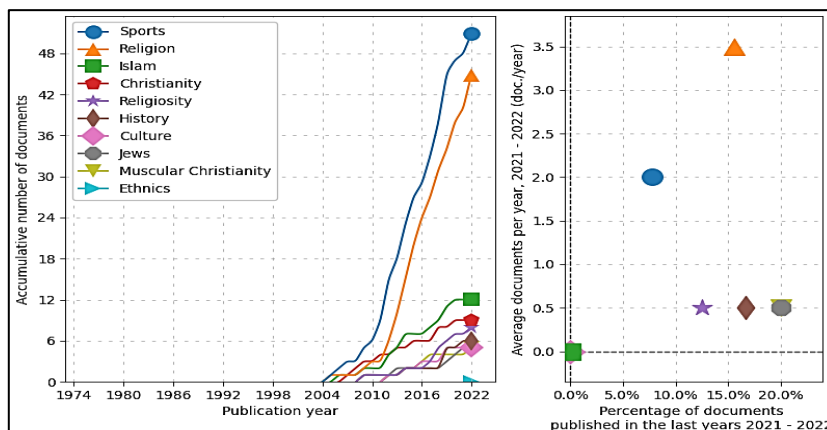


Figure 2. Top ten trending topics based on the author's keyword

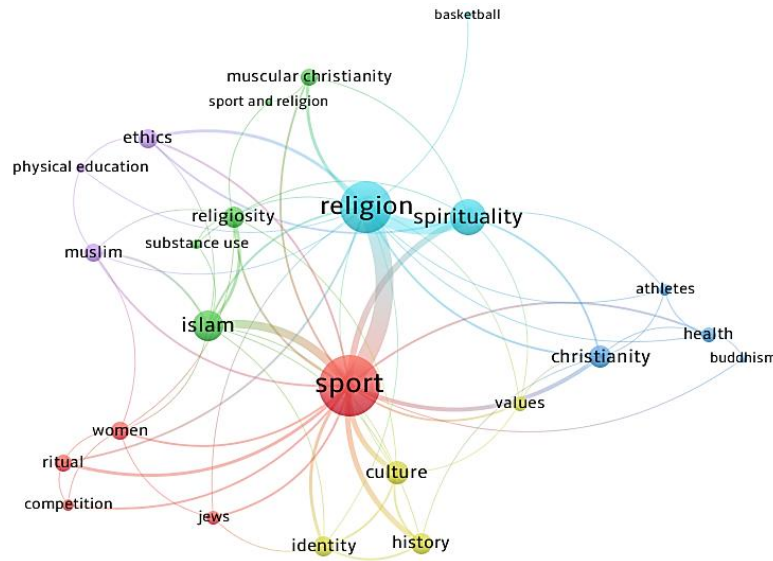


Figure 3. Overlay visualization of the co-occurrence of authors' keywords

In addition, a thematic map based on density and centrality separated into four topological zones was generated, as shown in Figure 4. This result was achieved using a semi-automatic technique that examines the author keywords of all documents analyzed in this study. From this tactic map, we can get the following information: i) niche theme. The high density and centrality in the left quadrant imply that "health" is a specific topic in sports and religion; ii) motorcycle theme. High density and centrality in the upper right quadrant imply the subjects "sports," "Islam," and "Christianity" are the central themes; iii) basic theme. Furthermore, the lower right quadrant shows that "religion," "spirituality," and "ethics" are the primary themes of the development of the field of sports and religion; and iv) emerging or declining theme. Per the trend topics in Figure 4, "muscular Christianity," which is in the lower left quadrant, shows that this topic is currently developing and is hot for research related to the theme of sports and religion.

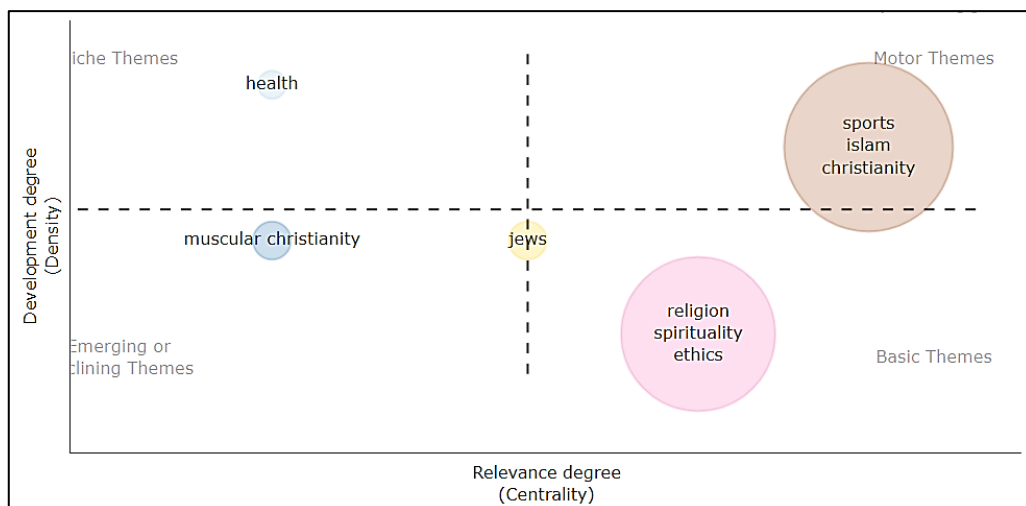


Figure 4. Thematic map

The fact that experts in physical education and sports concur that the body and its embodied interests, like sports, have significant religious meaning is another intriguing point that can be extracted from this research [50]. Exercise and physical activity can provide profound spiritual insight into our daily lives and serve as a concrete expression of physical growth and achievement [51]. The negative psychological effects of religion on physical education and sports, however, have not been investigated in any study [52].

However, it has long been advised for sportsmen in all sports to sacrifice everything for God's honour [53]. For example, some religions may have specific guidelines or restrictions on physical activity, while others may place greater emphasis on competition or the pursuit of personal excellence. The intersection of sport and religion also raises essential ethical and moral questions, such as the role of sportsmanship, fair play, and respect for opponents.

4. CONCLUSION

The relationship between sport and religion is a complex and complicated one, with many intersections and overlaps. Various religions encourage physical activity and sports to promote health and well-being. In addition, sports can serve as a platform for expressing and reinforcing religious values and beliefs. For example, many athletes use sports to glorify God or seek spiritual transcendence through physical exertion. In addition, sports can provide a context for building social relationships, foster values such as discipline and perseverance, and encourage teamwork and sportsmanship—all in line with religious teachings. It is interesting to note how different religious beliefs and practices can influence the outlook and approach to the sport. The relationship between sport and religion is an interesting field of study that offers insight into how individuals and communities approach physical activity, spirituality, and moral values.

ACKNOWLEDGEMENTS




The authors have recognized the reviewers' contributions in improving the paper's quality. Acknowledging the reviewers' feedback and suggestions is essential to the academic publishing process and shows the writers' appreciation for their time and effort. It also helps to maintain the quality and credibility of the research. We would like to acknowledge that this research was conducted without the support of any research grant.

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APPENDIX

Table 1. Preprocessing brief

Info	n	%	Source	CP (%)	AR (%)	RE (%)	PP (%)	Total (%)
Loaded papers	669		WoS	0.0	49.5	2.1	3.5	55.2
			Scopus	0.2	39.0	5.6	0.0	44.8
Omitted papers by document type	243	36.3						
Total papers after omitted papers removed	426							
Loaded papers from WoS	235	55.2						
Loaded papers from Scopus	191	44.8						
Duplicated papers found	115	27.0						
Removed duplicated papers from WoS	2	0.9						
Removed duplicated papers from Scopus	113	59.2						
Duplicated documents with different cited by	67	58.3						
Total papers after rem. dupl.	311							
Papers from WoS	233	74.9						
Papers from Scopus	78	25.1						
Statics after duplication removal filter			WoS	0.0	67.5	2.9	4.5	74.9
			Scopus	0.3	20.9	3.9	0.0	25.1

Information: conference paper (CP); article (AR); review (RE); proceedings paper (PP)