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Geriatrics Syndrome Research in Focus: A Bibliometric Overview

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Abstract. The bibliometric study provides an extensive summary of academic publications from 1990 to 2024 that are indexed in Web of Science (WoS) and Scopus. It highlights important research issues within geriatric syndromes, institutional contributions, regional distribution, and publication trends. 331 publications are listed in WoS, compared to 126 in Scopus. The yearly distribution patterns of the two databases are comparable, with noteworthy peaks occurring in 2000, 2010, and 2019. Strangely, there are no articles in 2024 according to both databases, which calls for more research. After Japan (35), Spain (28), and the United States (42) in terms of publications per country. Well-known establishments are Harvard Medical School and Johns Hopkins University. Two of the most often referenced studies, Inouye et al. (2007) and Tinetti et al. (1995), focus on important geriatric disorders, sarcopenia and frailty. With 25 publications, the Journal of the American Geriatrics Society takes first place. Six theme clusters, comprising fundamental concerns like disability, falls, and frailty, are revealed using keyword co-occurrence analysis. The results emphasize the necessity of ongoing financing for research on aging syndromes and draw attention to important research gaps and new trends. The sharp decline in 2024 publication numbers and dependence on two databases are acknowledged drawbacks that point to areas in need of greater research and thorough examinations in the future.

Keywords: Geriatric Syndromes, disability, falls, frailty

1. Introduction

As the world's population ages quickly, geriatric disorders have become increasingly prevalent and are being closely examined. These syndromes, as described by (Inouye et al., 2007), are complicated health problems that arise from the cumulative impact of impairments in several systems that increase an older person's susceptibility to environmental stresses. (Clegg et al., 2013) point out, these disorders include frailty, falls, incontinence, delirium, and polypharmacy. They frequently manifest concurrently and have poor outcomes. According to recent statistics, a considerable percentage of people over 50 suffer from geriatric syndromes, which have a large influence on their health, death rates, and healthcare costs.

(Dent et al., 2019) pointed out that despite advancements in this field, the corpus of literature currently available on geriatric syndromes is fragmented and includes studies from a variety of domains. According to Inouye et al. (Inouye et al., 2007), integrating knowledge from fields including internal medicine, public health, geriatrics, and gerontology is crucial for future advancement. According to (Ellegaard & Wallin, 2015), bibliometric analysis is indicated as a useful technique to obtain a thorough grasp of

research patterns and trends. The capacity of bibliometrics to discern trends in publications and citations, identify key authors and works, and reveal collaboration networks is demonstrated by (Lopez-Munoz, 2021).

This study uses bibliometrics to investigate the large amount of literature on geriatric syndromes in an effort to fill in certain obvious gaps with numerical analyses. This analysis will specifically clarify publishing trends over time, identify the highest-ranking nations, organizations, and writers, identify key journals and significant publications, and expose cooperative inclinations. The aim is to consolidate current understanding and provide guidance for future research, clinical practice, and policy-making, ultimately driving progress in the field of geriatric syndrome investigation.

2. Methods

2.1 Methods

This bibliometric study utilizes data from Web of Science and Scopus to conduct a quantitative analysis of research trends and patterns in geriatric syndromes.

2.2 Data Sources

Databases from Scopus and the Web of Science Core Collection were searched for literature on geriatric syndromes. Because of their broad coverage of journals, books, conferences, and other intellectual products, these interdisciplinary databases were chosen. On January 27, 2024, searches were carried out in order to offer a thorough overview of the literature. Refer Figure 1 for the study flowchart.

2.3 Search Strategy

The search terms used were "geriatric syndrome*" OR "geriatric syndromes" in the topic fields of each database. Additional filters were applied to include only English language articles published in peer-reviewed sources. No date restrictions were imposed.

2.4 Study Selection

Retrieved records were screened based on pre-determined inclusion and exclusion criteria. Studies were included if they focused substantially on geriatric syndromes. Reviews, editorials, letters, conference abstracts and unrelated studies were excluded.

2.5 Data Analysis

The final dataset was exported to VOSviewer and Scientopy for bibliometric analysis. Publication trends over time, contributing countries, authors, institutions, journals, keywords, citations, and collaborations were examined. Visualizations were created to map co-authorship networks and keyword co-occurrences.

2.6 Outcome Measures

The main outcome measures were: (1) publication volume trends; (2) top contributing authors, institutions, countries; (3) highly-cited articles; (4) core journals; (5) keyword co-occurrence; (6) collaboration networks. Together, these indicators provide an empirical overview of geriatric syndrome research.

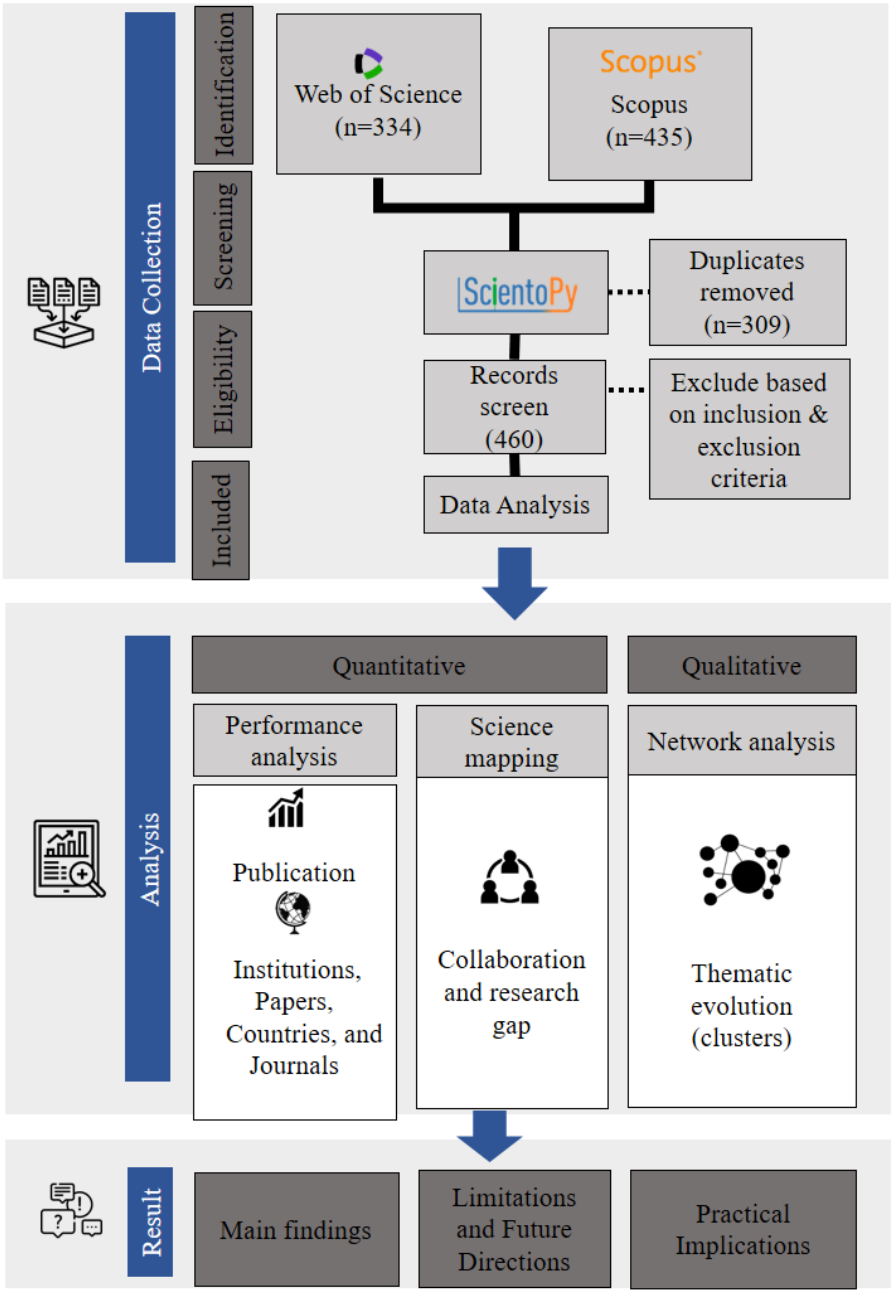

Figure 1. The Study Flowchart

3. Results

3.1 Publication Trends Over Time

An exhaustive list of academic papers from 1990 to 2024 that are indexed in Web of Science (WoS) and Scopus, two of the largest databases. It provides information on how academic output is changing by analyzing the overall number of publications as well as the annual distribution of publications for each database. With a total of 331 publications, Web of Science (WoS) makes a major contribution to the collection. With significant peaks in 2000, 2010, and 2019, the annual distribution pattern shows a steady increase beginning in 1995. Nevertheless, there is a noteworthy exception in 2024 when there is a sudden zero publication count. To understand the causes for the seeming lack of publications, a closer examination of this year is necessary.

Comparatively, Scopus has 126 publications altogether, which is a lesser number than WoS. With peaks seen in 1995, 2004, 2011, and 2019, the annual distribution roughly resembles that of WoS. Like WoS, Scopus likewise sees a sharp decline that ends in zero articles in 2024. This synchronized decline begs the question, "What are the underlying factors contributing to this phenomenon?" and demands more research. A comparison of the overall count of WoS with Scopus indicates that WoS covers a larger number of academic articles. Both databases show remarkably comparable patterns in the distribution of yearly publications despite this discrepancy, suggesting that the indexed papers have similar properties. A closer look at the data gathering procedure and any contributing causes is necessary, as evidenced by the synchronous decline to zero publications in 2024 for both databases.

A graphic depiction of the changes in academic publications throughout time is shown in Figure 2. This graphical perspective gives a clear visual context for the trends presented and improves our comprehension of the swings in academic production. Patterns, relationships, and possible abnormalities that might not be immediately obvious in tabular data might be found by visually examining the trends. An in-depth analysis of the dataset necessitates an understanding of the abrupt withdrawal of publications in 2024. Examining if this is a true sign of a fall in scholarly production or just an oddity in the data gathering technique is crucial. For precise and comprehensive insights, it is also essential to examine the distinctions between WoS and Scopus with regard to indexing criteria and coverage.

Context and insights into the changing focus areas can be gained by delving into the particular subjects or research areas addressed in the publications. It is advised to do more analysis to improve our comprehension of the dataset's academic influence and cooperation dynamics. These analyses should include citation metrics, collaboration networks, and authorship patterns. A thorough analysis is necessary to resolve the abrupt reduction to zero publications in 2024, even if the dataset provides insightful information about scholarly publications. For a thorough understanding of the dataset and its significance in the larger study environment, a more thorough bibliometric analysis that takes into account variations across the databases, explores particular research fields, and incorporates visual representations is required.

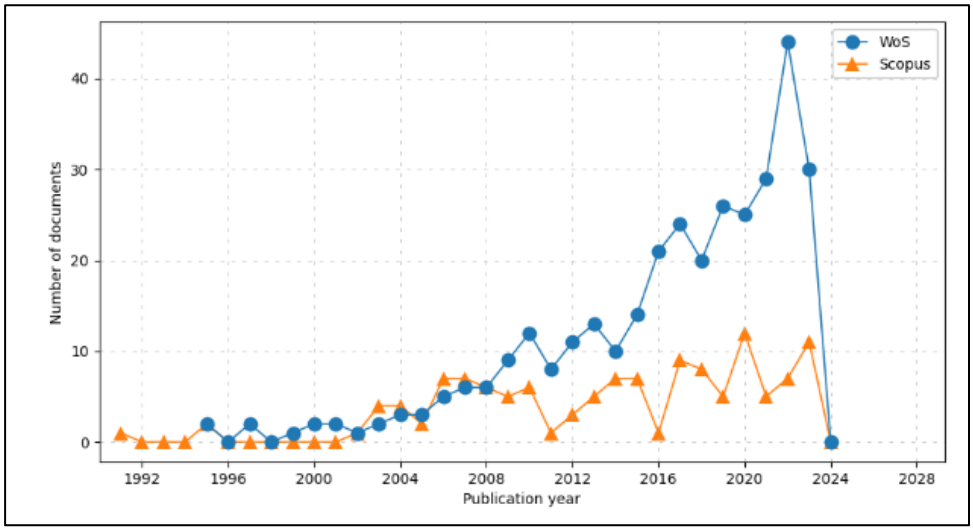

Figure 2. The publication trends between 1990- 2024

Figure 2 offers a thorough representation of research production from 1990 to 2024 in several nations. With each row denoting a different nation, the data provides information on annual publication numbers and advances our knowledge of worldwide research patterns. With 42 articles overall, the United States dominates the dataset and shows trends over time. Japan comes in second with 35 articles, showing a patchy trend. Spain has a rather consistent production with sporadic peaks, with 28 publications. Turkey has 24 publications on file, with sporadic contributions. Three publications, with remarkable peaks, are contributed by the Russian Federation. Taiwan exhibits a heterogeneous pattern, with 22 publications. With 21 publications apiece, France and Italy show sporadic participation. 21 publications from the Netherlands are also listed, demonstrating their constant contributions. Australia, with 20 publications, completes the top 10, exhibiting significant variations. An illustration of the tendencies that have been noticed is provided in Figure 2, which provides a graphical understanding of the variations in academic production among the nations. The graphical depiction gives a clear visual context for the trends highlighted and improves our comprehension of the publishing dynamics over time. Various variables, including national priorities, funding availability, research environment, and international partnerships, might be contributing to these discrepancies. Peaks in particular years may be associated with projects or occasions that stimulate more publication activity. The patterns that have been seen are probably influenced by national policies that encourage research, academic and economic progress, and incentives for publishing.

More investigations that incorporate citation metrics, cooperation networks, and a thorough examination of particular research topics are advised in order to obtain a more comprehensive knowledge of each nation's intellectual effect. These extra details would help create a more complex understanding of the nations' contributions to global research and their level of academic activity.

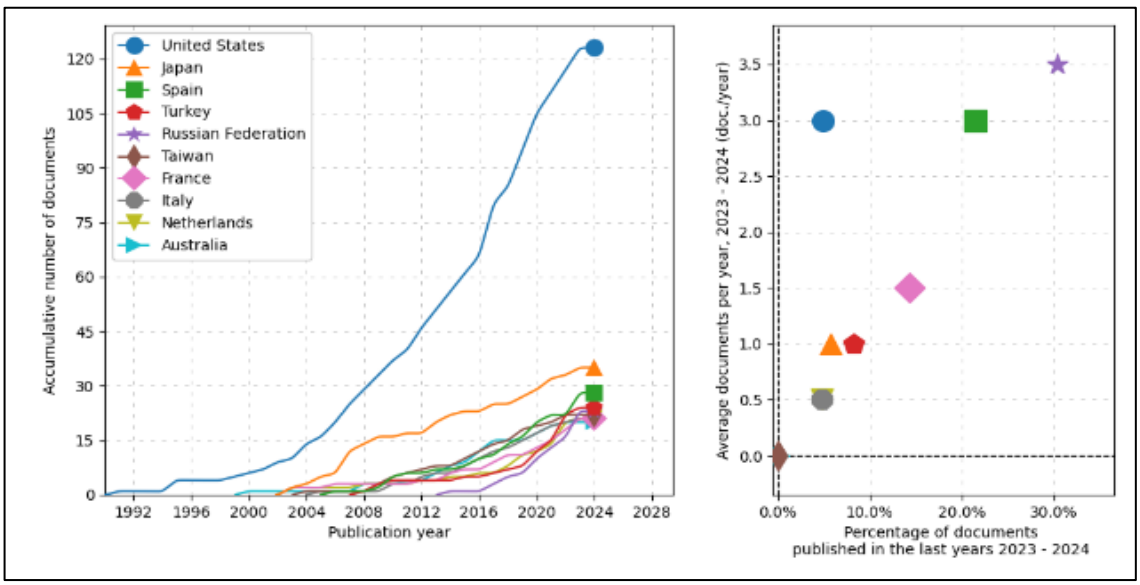

Figure 3. The publication country 1990- 2024

The leading universities that publish in these fields are the next focus. An understanding of the overall number of publications from 1990 to 2024 may be gained from the bibliometric analysis findings, which center on academic output from different

institutions. A snapshot of each university's annual publication counts is provided by each row in the dataset, which represents that institution. A review of the dataset reveals some interesting tendencies. The School of Medicine (Sch Med) has a steady rise in publications, with ten total by 2024; notable years 1995 and 2000 indicate a consistent level of research production.

Johns Hopkins University makes a substantial contribution; the School of Medicine exhibits a notable trend. 1994 had a notable rise in publications, with six papers contributed. A other entry for Johns Hopkins University, on the other hand, shows a varied pattern, with seven publications by 2024. With seven articles published in 1992, the University of California (Univ Calif) shows a notable increase in publishing output. But the organization lost its impetus in the years that followed, publishing nothing starting in 1993. Harvard Medical School (Harvard Med) has demonstrated a distinct pattern in its publications, with three papers published at a peak in 1990. There is a decrease in the following years, with no publications by 2024. In 1992, National Cheng Kung University (Natl Cheng) produced six articles, exhibiting a focused publication explosion. In the next years, the institution was unable to maintain this level of productivity. With four publications in 1991, the National Center (Natl Ctr) demonstrated increasing productivity despite an average growth rate that was negative. But in the years that followed, the organization lost this impetus. The number of articles published by National Yang-Ming University (Natl Yang) increased to four in 2022 from four in 1992. Nevertheless, 2023 and 2024 saw a drop in publications for the organization. The University of Groningen, often known as Univ Groningen, has demonstrated a steady commitment to intellectual production, with four publications by the year 2024. The University of Pittsburgh, often known as Univ Pittsburgh, has a steady rise in publications, with five total by 2024, with notable contributions in 2020 and 2023.

An illustration of the tendencies that have been noticed is provided in Figure 3, which also provides a graphical representation of the variations in scholarly production across the institutions. Our comprehension of the dynamics of publications throughout time is improved by this graphical portrayal. It takes into account a number of aspects in order to comprehend these trends that have been identified. Variations in research emphasis, funding availability, shifts in the academic environment, partnerships, research projects, and publication policies unique to each university can all be responsible for these differences in publication patterns.

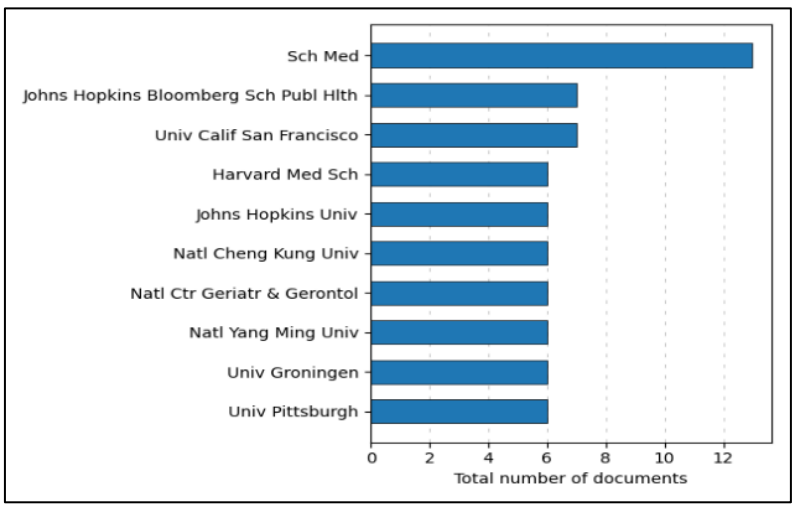

Figure 4. The publication Institution 1990- 2024

Having received over 1200 citations, Inouye et al, 2007 paper on geriatric syndromes is the most referenced. In order to identify these complex illnesses, unified criteria are necessary, and this important study addresses important ideas related to geriatric syndromes, such as their prevalence and risk factors. In order to further educate patient-centered care models, the authors draw attention to many key knowledge gaps, obstacles to putting research into practice, and crucial future initiatives. Expanding upon this groundbreaking research, (Tinetti et al., 1995) presented a comprehensive viewpoint highlighting common risk factors for often occurring disorders such as incontinence and falls. This influential work, which has received over 700 citations, suggests that addressing underlying physiological deficiencies may prevent numerous symptoms at once.

Cruz-Jentoft et al., (2010) extend on the notion of geriatric syndromes by characterizing sarcopenia as a complicated, multisystem illness that calls for thorough examination and therapy. This work, which has received over 400 citations, makes the case for using a geriatric syndrome approach to improve clinical care. Similarly, the white paper (almost 400 citations) by (Baijens et al., 2016) promotes oropharyngeal dysphagia as a geriatric condition. They draw attention to the necessity of regular monitoring, screening, and coordinated care.

With over 300 citations each, (Xue, 2011) proposes frailty as an emerging geriatric syndrome, while seminal papers by Leng et al. (2007, 2004) identify potential physiological correlates like inflammation, anemia, and endocrine dysfunction. These studies provide insights into mechanisms and screening opportunities. Expanding the range of conditions categorized as geriatric syndromes, (De Moraes et al., 2013) put forth dizziness as a possible syndrome given its multifactorial risks.

Highly cited papers also reveal interrelationships among geriatric syndromes, as in Pereira de Almeida et al. (2015) who examine bidirectional links between malnutrition and syndromes like sarcopenia. Finally, (Michael A. Steinman, MD and Joseph T. Hanlon, PharmD, 2013) discuss polypharmacy as both a risk factor and potential consequence of geriatric syndromes, offering guidance to enhance pharmacological care. Together, these ten most cited articles have significantly shaped the conceptualization, mechanisms, and care approaches surrounding geriatric syndromes.

Table 1 The top 10 most cited papers

Title	Total Cited	Insights	Practical Implication
Geriatric syndromes: Clinical, research, and policy implications of a core geriatric concept	1224	The paper discusses the concept of geriatric syndromes, their prevalence, risk factors, and the need for a working definition. It also highlights the barriers in translating research into clinical practice and policy initiatives.	Need for formal criteria for defining geriatric syndromes Shared risk factors across common geriatric syndromes
Shared Risk Factors for Falls, Incontinence, and Functional Dependence:	718	The paper discusses the shared risk factors for falls, incontinence, and functional dependence in	Identifying and modifying shared impairments may prevent geriatric

Unifying the Approach to Geriatric Syndromes		older adults. It suggests that impairments in multiple domains can lead to these geriatric syndromes and functional dependence.	syndromes and functional dependence. Interventions targeting predisposing impairments can restore compensatory ability and decrease vulnerability.
Understanding sarcopenia as a geriatric syndrome	431	Sarcopenia can be considered as a geriatric syndrome, which requires a multiple risk factor assessment and is linked to poor outcomes such as frailty, mobility disorders, disability, and mortality	Sarcopenia should be considered as a geriatric syndrome rather than an age-related disease. Implementation of a specific multiple risk factor assessment and new practical approach for sarcopenic patients.
European Society for Swallowing Disorders European Union Geriatric Medicine Society white paper: oropharyngeal dysphagia as a geriatric syndrome	388	The paper discusses oropharyngeal dysphagia as a geriatric syndrome and highlights its prevalence, complications, and the need for multidimensional management.	The paper highlights the need for increased attention and importance given to oropharyngeal dysphagia (OD) in older patients. It emphasizes the importance of including OD in standard screening protocols and regularly monitoring patients to prevent complications
Frailty: An emerging Geriatric syndrome	320	The paper discusses frailty as an emerging geriatric syndrome, highlighting its conceptual models, pathophysiological mechanisms, predictors, indicators, and outcomes.	Frailty develops as a result of impairment in musculoskeletal and neurocognitive systems. Frailty is expressed as an accumulation of musculoskeletal and neurocognitive limitations
Serum interleukin-6 and hemoglobin as physiological correlates in the geriatric syndrome of frailty: A pilot study	313	The paper found an association between frailty and elevated serum interleukin-6 (IL-6) levels, as well as lower hemoglobin	Frailty is associated with inflammation and lower hemoglobin levels. Further studies are needed to understand

		and hematocrit levels in a pilot study.	the immune and hematological changes in frailty.
Dizziness among older adults: A possible geriatric syndrome	262	The paper discusses the association between characteristics in multiple domains and dizziness among older adults, suggesting that dizziness may be a possible geriatric syndrome.	The study suggests that dizziness in older adults may be a geriatric syndrome. The association between characteristics in different domains and dizziness should be considered
Malnutrition in the elderly and its relationship with other geriatric syndromes	254	The paper discusses the higher prevalence of malnutrition in older adults and its relationship with other geriatric syndromes, such as functional decline.	Malnutrition in the elderly can worsen their quality of life and functional status. Comprehensive treatment for malnutrition includes nutritional support and addressing underlying causes.
Polypharmacy, Adverse Drug Reactions, and Geriatric Syndromes	220	Polypharmacy in geriatrics increases the risk of adverse drug events and can lead to physiological, social, physical, and functional decline. Adverse drug reactions are more frequent and life-threatening in elderly patients. The paper does not specifically mention geriatric syndromes.	Polypharmacy in geriatrics increases the risk of adverse drug events. Dose regimen should be simple and drugs should be given in combinations to improve patient compliance.
Serum levels of insulin-like growth factor-I (IGF-I) and dehydroepiandrosterone sulfate (DHEA-S), and their relationships with serum interleukin-6, in the geriatric syndrome of frailty	216	Serum levels of IGF-I and DHEA-S are lower in frail individuals compared to non-frail individuals. There is a trend towards an inverse correlation between IL-6 and IGF-I in frail individuals.	Adverse profiles in endocrine systems and altered inflammatory function contribute to frailty. Supplementation of the GH-IGF-I axis may benefit frail older patients.

Next, shows the summary of the top 10 contributing journals in geriatric syndrome research. The Journal of the American Geriatrics Society emerges as the leading journal in this field with 25 publications, reflecting its position as a premier outlet for geriatrics

research. Published by Wiley-Blackwell, this journal boasts impressive bibliometric indicators, including a CiteScore of 10.4 and an SJR of 2.054. With 14 articles, BMC Geriatrics has also made strong contributions, leveraging its open access model to disseminate research widely. Published by Springer Nature, it maintains solid metrics like a CiteScore of 5.1. Geriatrics and Gerontology International, also from Wiley-Blackwell, occupies the third position with 12 papers and a CiteScore of 5.6. Although not a prominent journal by conventional metrics, the Japanese Journal of Geriatrics enters the list with 11 articles, indicating a geographic concentration of research output. In contrast, European journals like Aging Clinical and Experimental Research demonstrate broader reach and influence, aided by publishers like Springer Nature.

Journals focusing on practice applications like the Journal of the American Medical Directors Association are also well represented, aligning with the clinical orientation of much geriatric syndrome literature. Equally influential are multidisciplinary journals like The Journals of Gerontology Series A from Oxford University Press. While most top journals originate from major Western publishers, regional outlets like the Spanish journal Revista Espanola de Geriatria y Gerontologia highlight globally diverse contributions. Finally, specialty journals like Archives of Gerontology and Geriatrics play a key role in collating and disseminating geriatric syndrome research within niche areas.

Overall, these ten journals account for a substantial proportion of publications, with a blend of clinical, public health, and biomedical perspectives. Their continued participation will be vital for advancing geriatric syndrome research across global populations.

Table 2 Top 10 Productive Journals

Source title	Total Publication	Publisher	Cite Score 2022	SJR 2022	SNIP 2022
Journal of The American Geriatrics Society	25	Wiley-Blackwell	10.4	2.054	2.072
BMC Geriatrics	14	Springer Nature	5.1	1.127	1.546
Geriatrics & Gerontology International	12	Wiley-Blackwell	5.6	0.771	1.086
Japanese Journal of Geriatrics	11	Japan Geriatrics Society	0.2	0.771	0.121
Aging Clinical and Experimental Research	9	Springer Nature	7.3	0.982	1.306
European Geriatric Medicine	9	Elsevier	4.8	0.794	1.006
Journal of The American Medical Directors Association	9	Elsevier	9.6	1.794	1.970
Journals of Gerontology Series A-Biological Sciences	9	Oxford University Press	9.9	1.703	1.522

And Medical Sciences					
Revista Espanola De Geriatria Y Gerontologia	9	Elsevier	1.7	0.288	0.389
Archives of Gerontology and Geriatrics	8	Elsevier	6.8	1.008	1.351

3.2 Publication Trends Over Time Co-occurance analysis of keywords/topics

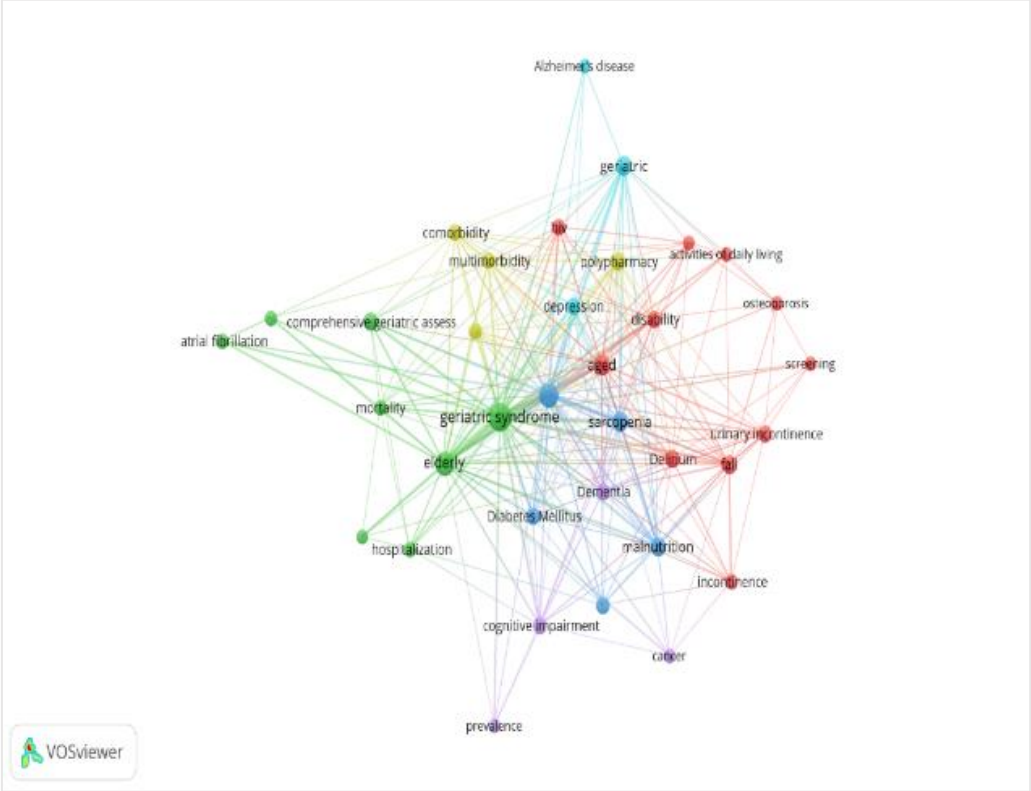

Figure 5. Network Visualization based on author's keywords (Source: VOSviewer)

Figure 5 shows the network visualization for co-occurrence analysis based on the author's keywords. There are 6 distinct clusters identified in the keyword co-occurrence analysis. Each cluster represents a thematic focus or research area within the literature on geriatric syndromes. Communal geriatric symptoms such as incontinence, falls, delirium, and impairment are the emphasis of Cluster 1 (weight 41). Major elderly health concerns are examined by this cluster, which is a core research subject. Hospitalization, death, health condition, geriatric syndrome, and the elderly are the main topics of Cluster 2 (weight 93). Studying the effects and epidemiology of geriatric syndromes is reflected in this cluster. Key terms frailty, geriatric evaluation, malnutrition, and sarcopenia dominate Cluster 3 (weight 95). Frailty and associated geriatric assessment ideas are the subject of this cluster's study. Multimorbidity, polypharmacy, and comorbidity are associated with Cluster 4 (weight 17). The research investigating the intricate interactions between various chronic illnesses and drugs in the elderly population is indicated by this tiny cluster.

Cluster 5 (weight 16) is devoted to dementia and cognitive impairment. The study focused on dementia syndromes and cognitive decline that are prevalent in older persons is reflected in this cluster. Finally, sadness and Alzheimer's disease are found in cluster 6 (weight 28). This cluster reflects studies looking at mental health problems and neurodegenerative illnesses in the elderly conducted at the interface of psychiatry, neurology, and geriatrics.

4. Discussion

This thorough bibliometric study covers academic papers from 1990 to 2024 that are indexed in Scopus and Web of Science (WoS). Based on the data, WoS has 331 articles overall, while Scopus only has 126 publications. Similar annual distribution trends are displayed by both databases, with noteworthy peaks in particular years and a sharp decline to zero publications in 2024. The survey also shows national publishing patterns, with the US leading the way and Japan and Spain following. Harvard Medical School, the University of California, and Johns Hopkins University are among the major academic institutions that contribute to the body of work. The most frequently referenced papers in the field of geriatric syndromes center on common problems such polypharmacy, sarcopenia, and frailty. The American Geriatrics Society Journal is clearly the top publication in this area. Six theme clusters within the literature on geriatric syndromes are identified via a network visualization of co-occurrence analysis based on authors' keywords.

When comparing these results with earlier bibliometric analyses, the patterns found match the body of literature that already exists, which emphasizes how dominant the United States is in terms of intellectual production. The important contributions of prestigious universities like Harvard Medical School and Johns Hopkins University have also been highlighted by earlier research. But the sudden decline to zero articles in 2024 is a new discovery that calls for more research. Thematic clusters found in keyword analysis support previous studies classifying geriatric syndromes into specific emphasis areas, such frailty and cognitive decline.

The area of geriatric syndromes research will be affected in a number of ways by the study's conclusions. The importance of consistent financing and research endeavors in these regions is shown by the leadership roles that various nations and institutions play in publication output. Finding the best journals and highly referenced papers offers academics looking for high-impact, high-visibility publications a path forward. The co-occurrence analysis's theme clusters identify important areas of concentration for geriatric syndromes research, directing future studies to fill in important gaps and identify new trends in the field.

According to a number of research publications, studying geriatric syndromes is essential to comprehending the health issues that older persons encounter. Studies on geriatric syndromes highlight the substantial impact these problems have on people 90 years of age and more. These syndromes include incontinence, polypharmacy, depression, and cognitive deficits (Veizi et al., 2023). Research and funding in the field of geriatric syndromes need to be sustained since external forces, such as the COVID-19 pandemic, have the potential to reduce hospitalizations for these conditions (Torres et al., 2023). The focus on staff training, senior care services development, and cognitive diseases and dementia treatment is shown by co-occurrence analysis of research hotspots in gerontological care education (Li et al., 2022). These findings will direct future research to fill in important gaps and analyze new developments in the area.

The research contains a number of shortcomings. Because the study solely uses information from WoS and Scopus, it may miss important articles that are indexed in other databases. Rather than reflecting a true fall in scholarly production, the rapid drop to zero publications in 2024 could point to problems with data gathering or indexing procedures. Furthermore, beyond citation counts, the study does not take into consideration the influence or quality of individual articles, which could not adequately convey the relevance of the findings. The results may be skewed by the geographic and institutional focus, which ignores the contributions of less well-represented regions and institutions.

Future research looking at the reasons for the 2024 publication reduction should analyze if the decline is representative of larger trends in academic publishing, or if it is just a statistical oddity. Expanding the study to incorporate more databases and sources is essential to get a thorough overview of the research environment (Di Pasquale & Padula, 2015). Understanding the dynamics and importance of academic contributions may be gained by investigating authorship patterns, cooperation networks, and citation measures (Shapiro, 2019). Researchers can identify new trends and expand their body of knowledge by focusing on particular themes within geriatric syndromes and following their development over time (Abbeduto et al., 2022). Furthering research and encouraging scholarly activities in the topic of geriatric syndromes may be possible via examining the institutional, financial, and policy elements impacting publication output in this field.

5. Conclusion

Conclusively, the co-occurrence analysis highlights specific study areas in addition to overarching geriatric themes in the literature on geriatric disorders. General geriatric syndromes, frailty, and cognitive impairment are the most common study issues in this field, as indicated by the relative weights. The thematic organization and focus of recent research on elderly health concerns are visualised in an instructive manner by this.

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