

A SCIENTOMETRIC REVIEW OF RELIGIOSITY, SPIRITUALITY, AND WELL-BEING IN ELDERLY POPULATIONS

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ABSTRACT

Background and Purpose: Research on the relationships between religiosity, spirituality, and elderly well-being has grown rapidly, yet its intellectual structure and thematic evolution remain fragmented across disciplines. This study maps the knowledge base on religiosity/spirituality and well-being among older adults, identifies influential contributors and themes, and highlights gaps to guide future scholarship.

Methodology: We retrieved 577 English-language journal articles published from 1992 to 2023 from the Web of Science Core Collection using topic searches combining religiosity/spirituality, well-being, and elderly-related terms. We conducted descriptive performance analysis (publication trends and leading journals, countries, and institutions) and used CiteSpace to run co-citation network analysis and thematic clustering.

Findings: The literature shows sustained growth, with the steepest rise in the last decade. Key clusters emphasize mental health and quality-of-life outcomes, religious/spiritual coping, social support, and care settings. Less-developed fronts include spirituality-informed public health and social policy, as well as longitudinal evidence on how religiosity and spirituality shape well-being trajectories in later life.

Contributions: This scientometric study consolidates a dispersed field by visualizing its core structure and emerging fronts, and proposes a forward agenda that is more interdisciplinary, policy-relevant, and longitudinal.

Keywords: Aging population, co-citation analysis, elderly well-being, mental health, religiosity, scientometric analysis, spirituality.

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1.0 INTRODUCTION

The amount of research examining the relationships between senior well-being, spirituality, and religiosity has increased significantly during the past three decades. Such increase stems from the growing understanding of the beneficial effects that spiritual and religious activities can have on older adults' mental and physical health. Recent research has also connected higher religiosity levels to better overall well-being, decreased symptoms of depression, and increased life satisfaction in older adults (Coelho-Júnior et al., 2022). The ageing of the world's population further emphasises the significance of these findings for society, especially when it comes to creating interventions meant to enhance the quality of life for the elderly (Zimmer et al., 2016). This body of knowledge also highlights the importance of spirituality and religiosity as coping strategies that provide resilience in facing the challenges of age-related problems (Bailly et al., 2018; Reis & Menezes, 2017).

The relationship between spirituality and religion with older people's well-being has received greater attention in the past few years, especially concerning social support systems, coping strategies, and mental health. Coelho-Júnior et al. (2022) conducted a thorough meta-analysis of 102 research and nearly 80,000 senior citizens and found that people with higher degrees of spirituality and religiosity had a 20% lower tendency of depressive symptoms. However, recent research (Barman et al., 2022) has demonstrated the significant effects of daily spiritual practice on mental health, underscoring the significance of spirituality in improving social interactions and life satisfaction. Despite these discoveries, there remain substantial gaps in the literature, especially when it comes to the conclusions' generalisability across various cultural and geographic contexts. This gap emphasises the importance of conducting more thorough and comparative reviews to properly comprehend how spirituality and religion affect older populations.

Despite the availability of a substantial amount of research, prior assessments have mainly focused on certain aspects of spirituality and religiosity, such as religious practices or components of well-being, rather than offering a comprehensive viewpoint. A broad review conducted by Coelho-Júnior et al. (2022) analysed over 3,000 publications and found only 13 research that addressed the function of spirituality in health care management for the elderly. However, the study did not provide a full understanding of well-being in different contexts. Similarly, although systematic reviews have shown that higher levels of spirituality and religiosity are positively correlated with lower levels of anxiety and depressive symptoms, these studies have primarily focused on mental health outcomes rather than considering the broader implications for overall well-being (Silva et al., 2021). The lack of a comprehensive synthesis in these evaluations indicates an invaluable knowledge gap regarding the ways in which spirituality and religion simultaneously promote the well-being of elderly people across various geographical and cultural contexts.

In light of these limitations, a scientometric analysis that carefully investigates the relationships and dynamics between research, authors, and journals in the subject of elderly well-being, spirituality, and religiosity is undoubtedly necessary. Such a study could reveal important intellectual turning points, highlight important research clusters and gaps, and offer insightful information on the evolution of research trends. Scientific methods, such as co-citation analysis and keyword clustering, may indicate that although a large number of studies have concentrated on mental health outcomes (Zimmer et al., 2016; Silva et al., 2021), there is an identifiable lack of research examining the relationship between spirituality and longevity with physical health. Thus, the use of scientometrics has become vital for mapping the field's intellectual structure, directing future studies, and identifying viable multidisciplinary approaches for filling all these gaps.

To address these issues, this paper reports a methodical analysis of published research on religiosity, spirituality, and well-being among the elderly from 1992 to 2023 via a

scientometric approach. Massive bibliographic datasets and advanced text-mining technologies were utilised to identify significant trends, notable contributors, and current research gaps. Scientometric techniques were also used to synthesise existing research with a focus on publishing trends, research topics, regional distribution, and contributions from influential authors and institutions. The research aims to specifically identify important research subjects (e.g., the importance of spirituality in managing chronic illnesses), examine prominent trends (e.g., the increased focus on mental health outcomes), and evaluate the regional distribution of research.

2.0 METHODOLOGY

A scientometric analysis was conducted involving recent scientific productions that were published over the last thirty years. Figure 1 displays the research framework utilised for this research.

2.1 Identification

The Web of Science repository was used in this study to find relevant papers on spirituality, religiosity, and older well-being. The search strategy incorporated the use of search phrases containing a range of related concepts and terminologies. The search was conducted on 26 August 2024 and concentrated on articles published from January 1992 to December 2023. Boolean operators and filters were employed to ensure thorough and relevant results, yielding a total of 707 records for initial screening. The Boolean search string used is as follows:

TS=(((("religiosity") OR ("Piety") OR ("Devotion") OR ("Faithfulness") OR ("Religiousness") OR ("Sanctity") OR ("Spirituality") OR ("Holiness") OR ("Devoutness") OR ("Reverence") OR ("Sacredness") OR ("Piousness") OR ("Worshipfulness") OR ("Godliness") OR ("Zeal") OR ("Religious fervor")) AND (("well-being") OR ("wellbeing") OR ("Happiness") OR ("Contentment") OR ("Satisfaction") OR ("Welfare") OR ("Prosperity") OR ("Comfort") OR ("Healthiness") OR ("Wellness") OR ("Wholeness") OR ("Good health") OR ("Flourishing") OR ("Serenity") OR ("Bliss") OR ("Fulfillment") OR ("Positive state")) AND (("Elderly people") OR ("Elderly individuals") OR ("Senior citizens") OR ("Seniors") OR ("Elderly folks") OR ("Aging population") OR ("Older adults") OR ("Mature individuals") OR ("Elder generation") OR ("Aged population") OR ("Geriatric individuals") OR ("Elderly men and women") OR ("Elder population") OR ("Golden agers") OR ("Retirees") OR ("Elderly residents")))).

2.2 Screening

The screening process involved removing articles that were considered irrelevant with the goal of keeping reputable, peer-reviewed sources. Non-article types (e.g., reviews and conference papers) and publications written in languages other than English were excluded, leaving a total of 577 articles for scientometric analysis. Duplicates were also eliminated to guarantee data accuracy.

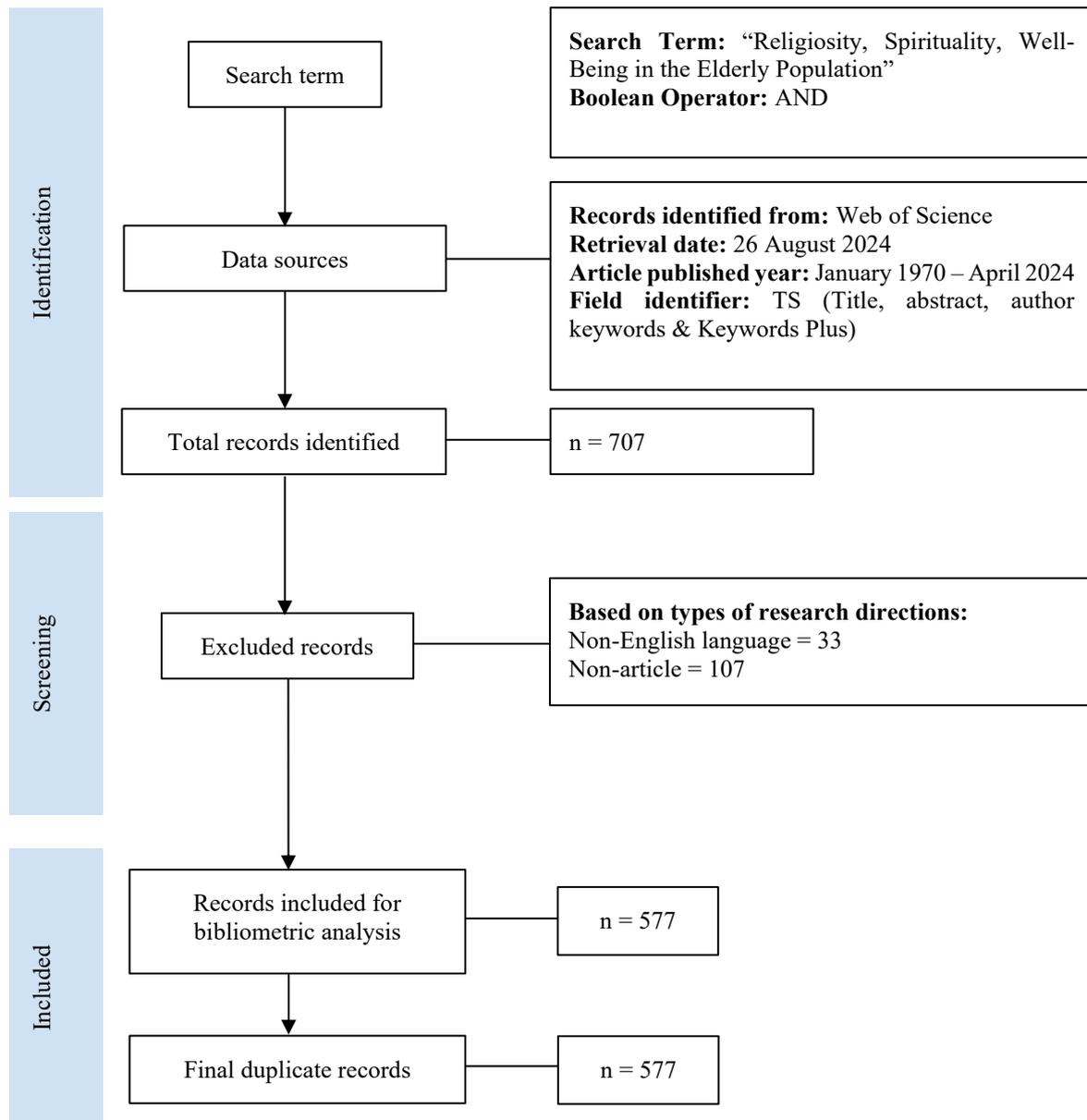


Figure 1: Methodological framework for the current study

2.3 Data Extraction and Analysis

The data analysis phase involved examining the publication characteristics of the 577 papers, such as authorship, journal, year of publication, and keywords. Descriptive statistics were employed via Microsoft Excel to investigate the publishing trends, institutional affiliations, and geographic distribution. Subsequently, CiteSpace was used to conduct advanced scientometric analysis in order to visualise co-citation networks, keyword correlations, and research trends.

2.4 Quality Control

Quality control was maintained throughout the data analysis. To confirm the validity and uniqueness of research clusters, metrics like the betweenness centrality, average silhouette score, and modularity Q-index were calculated. Citation burst identification highlighted

important articles and new trends in the dataset. This methodology offers a comprehensive approach to the literature review of age-related religion, spirituality, and well-being. A thorough grasp of the research landscape is further ensured by the application of a dependable database, stringent screening standards, and sophisticated analytical techniques. Such method draws attention to important writers, developing themes, and major trends in the subject.

3.0 DATA ANALYSIS

The data analysis in this study is divided into two key parts: descriptive analysis and scientometric analysis (Chen & Song, 2019; Chen, 2020).

3.1 Descriptive Analysis

Descriptive analysis was utilised to explore the annual publishing trends in determining the journals, organisations, and nations with the most significant contributions. Such analysis was done via Microsoft Excel 365, making it possible to break down the publication counts for various years in great detail and identify trends in the research output over time. Furthermore, highlighting the most prolific authors and institutions offered a clearer picture of the institutional and geographical distribution of research activity in this field.

3.2 Scientometric Analysis

Scientometric analysis was conducted via CiteSpace 6.3 for Windows to generate visualisations and knowledge graphs, following methodologies similar to those outlined by Chen and Song (2019) and Chen (2020). This software enabled the creation of bibliometric networks, which were explored through various analytical approaches like dual-map overlay and document co-citation analyses.

3.3 Dual-Map Overlay Analysis

The dual-map overlay analysis illustrates how studies in this topic are connected across disciplines by visually mapping the relationships between referenced and citing journals. The thickness of the connecting lines indicates the frequency of citations between various journals while the size of ovals in the overlay denotes the volume of publications. It offers a thorough understanding of the research domain's interdisciplinary nature (Azra et al., 2022; Mohd Noor et al., 2022, 2023; Chandra Segaran et al., 2024).

3.4 Document Co-Citation Analysis (DCA)

The document co-citation analysis uses metrics like burstiness (a measure of sudden increase in citations), centrality (a measure of influential articles within the network), and sigma (a composite measure that combines centrality and burstiness to evaluate the novelty and impact of research) to measure instances where two documents are cited together within the same paper. The Log-Likelihood Ratio (LLR) was used to name the DCA clusters, ensuring their comprehensiveness and distinctiveness. Both timeline and cluster views were employed to show the network structure, making it easier to follow how the study themes changed over time and how they were related to one another. The Modularity Q index and the Silhouette Metric, which evaluated the clusters' homogeneity and dependability, respectively, were used to quantify the clusters' quality and coherence. The present study provides a thorough knowledge of the state of the field by combining descriptive and scientometric analyses. This is achieved by highlighting significant works, emerging trends, and possible future research directions (Azra et al., 2022; Mohd Noor et al., 2022, 2023; Chandra Segaran et al., 2024).

4.0 RESULTS

4.1 Descriptive Analysis

4.1.1 Publication Trends

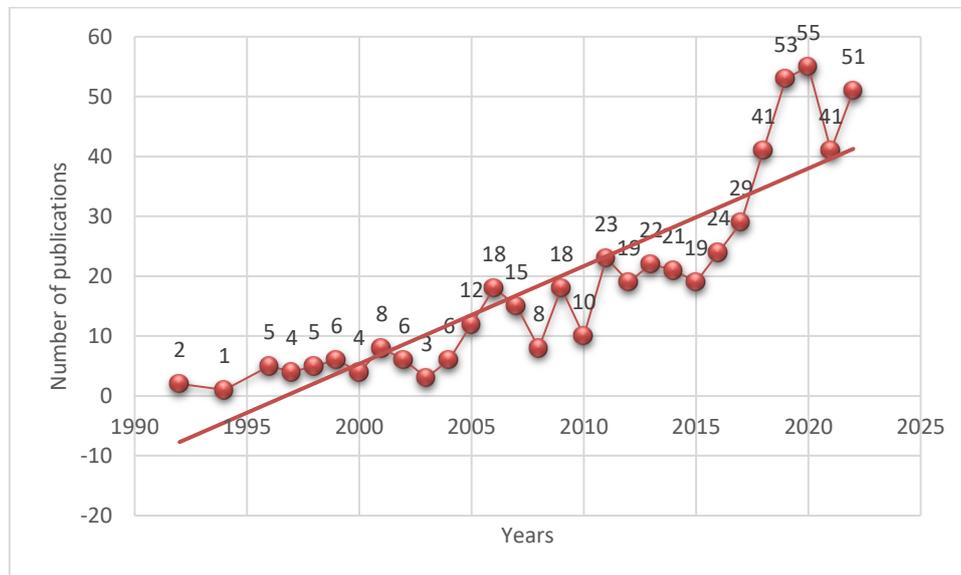


Figure 2: Number of research articles published annually since 1992

Scholarly interest in this field has been growing, as illustrated by the consistent rise in the number of research articles investigating the relationship between religiosity, spirituality and well-being since 1992. Notably, publication output has increased significantly in the last decade, driven by an expanding recognition of the importance of spiritual and religious factors in various dimensions of health and well-being. This trend is illustrated by the rise in articles from a mere handful in the early 1990s to over fifty publications annually in recent years (Figure 2).

4.1.2 Productive Authors

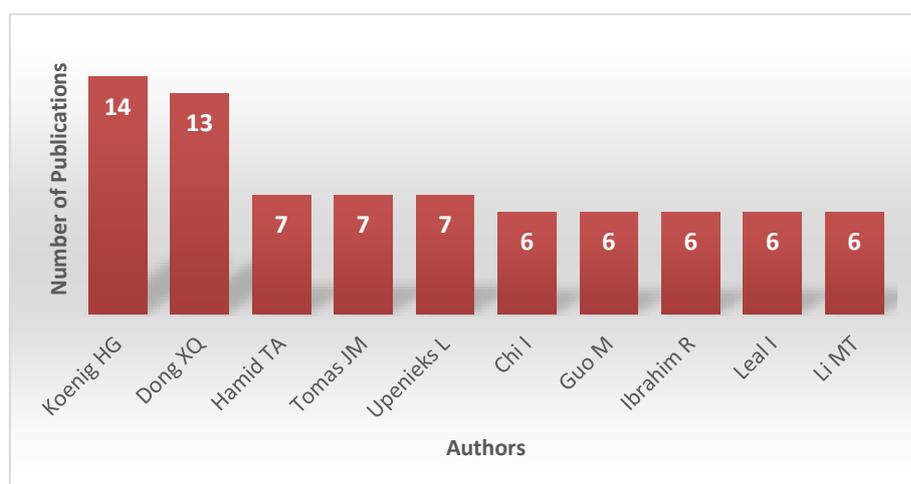


Figure 3: Top ten most productive authors from 1992 to 2023

A small group of researchers has been particularly influential in shaping the discourse on religiosity and well-being, contributing multiple high-impact studies over the past three decades. The top ten most productive authors, including those affiliated with major research

institutions, have collectively authored a significant proportion of the total publications. Their research has added to the theoretical frameworks in this area and produced empirical data that highlights the complex relationship between religious beliefs and health outcomes (Figure 3).

4.1.3 Top Institutions

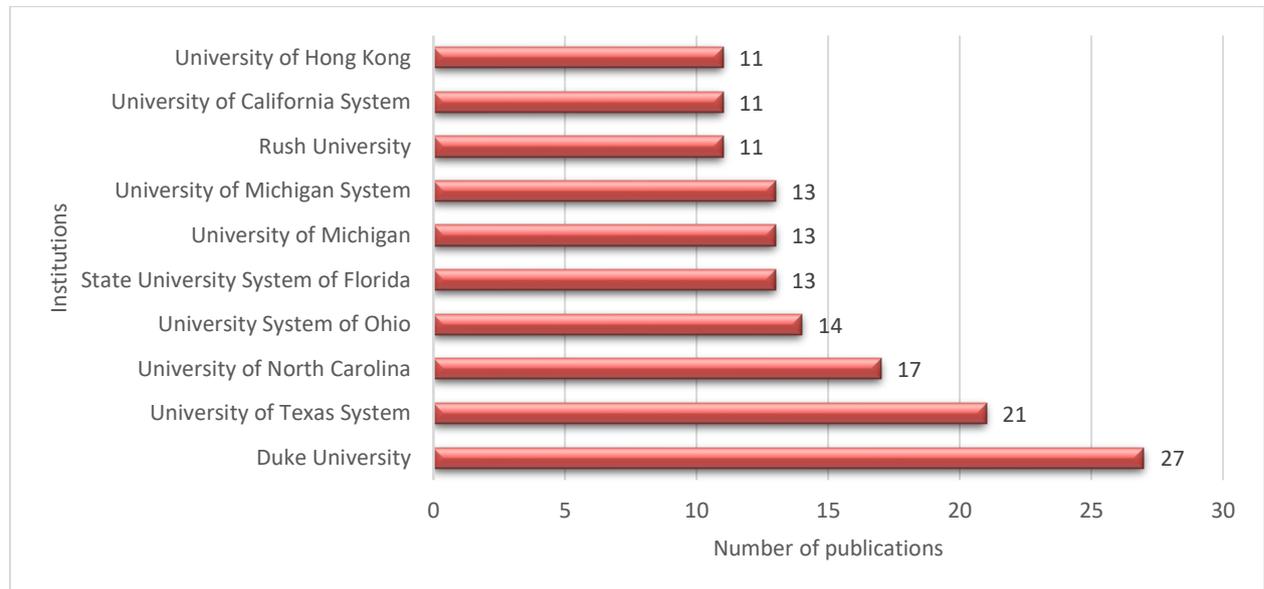


Figure 4: The number of publications from the top ten institutions

The research on religiosity and well-being is concentrated in a few leading academic institutions, with the top ten institutions accounting for a substantial share of the total publications. Renowned academic institutions that have demonstrated a persistent dedication to promoting research in this multidisciplinary area are Duke University and the University of Texas System. The depth and scope of the literature have increased as a result of the continuous research efforts by these institutions that examine the intricate relationships between spiritual beliefs and health (Figure 4).

4.1.4 Productive Journals

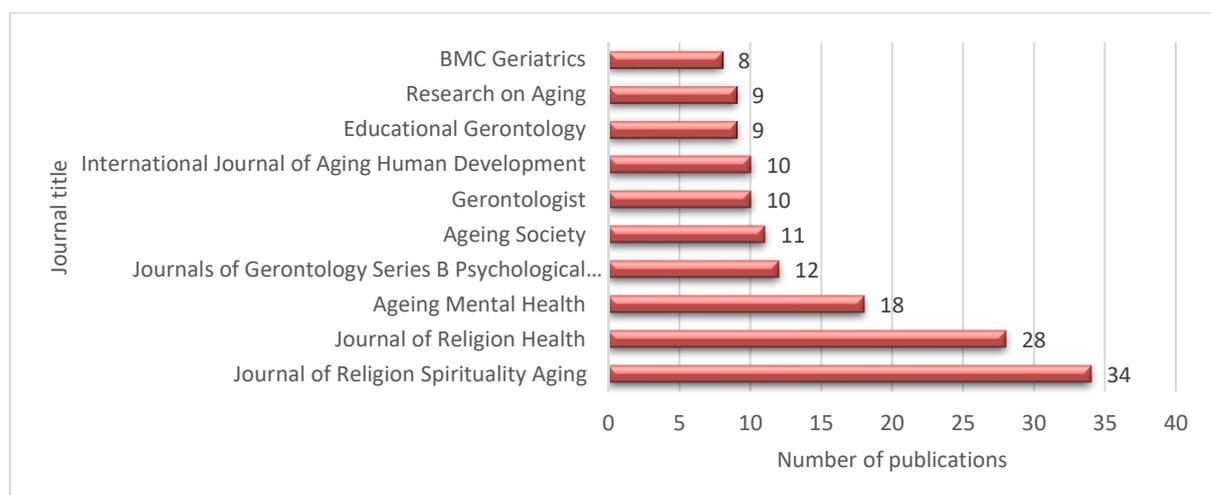


Figure 5: The number of publications published between 1992 and 2022 from the top ten journals

Research on the relationship between religiosity and well-being has mostly been published in a small number of scholarly journals. For academics working on this topic, journals such as *Ageing and Mental Health* and the *Journal of Religion and Health* have become essential resources. These journals play a vital role in the ongoing scholarly discourse surrounding religion and health since they not only publish an extensive number of papers but also have a significant citation impact (Figure 5).

4.1.5 Highly Cited Publication Journals

Several studies on religion and well-being have received prominent scholarly attention, as indicated by their large number of citations. These highly cited works—such as the ones that re-examine Rowe and Kahn's (1998) successful ageing model or investigate the meaning systems perspective on religion and health—have established themselves as fundamental works in the subject. Their influence is reflected in the extensive citations they receive, subsequently denoting their critical role in shaping subsequent research and theory development (Table 1).

Table 1: Top ten articles published between 1992 and 2022 with more than 100 citations

Title	Total Citations	DOI
Rowe And Kahn's (1998) Model of Successful Aging Revisited: Positive Spirituality - The Forgotten Factor	260	10.1093/geront/42.5.613
Religiousness/Spirituality and Health: A Meaning Systems Perspective	243	10.1007/s10865-007-9111-x
An Emerging Paradigm for The Investigation of Spirituality in Nursing	210	10.1002/nur.4770150505
Religious Attitudes and Practices of Hospitalized Medically Ill Older Adults	208	10.1002/(SICI)1099-1166(199804)13:4<213::AID-GPS755>3.0.CO;2-5
Religiosity Buffers Effects of Some Stressors on Depression but Exacerbates Others	192	10.1093/geronb/53B.3.S118
Death Anxiety in Older Adults: A Quantitative Review	188	10.1080/074811899200920
Religion, Health, And Psychological Well-Being in Older Adults - Findings from Three National Surveys	185	10.1177/089826439801000406
Spirituality And Religion in Patients With HIV/AIDS	180	10.1111/j.1525-1497.2006.00642.x
Religious Coping Among the Religious: The Relationships Between Religious Coping and Well-Being in a National Sample of Presbyterian Clergy, Elders, and Members	179	10.1111/0021-8294.00073
Religious Involvement, Spirituality and Personal Meaning for Life: Existential Predictors of Psychological Wellbeing in Community-Residing and Institutional Care Elders	170	10.1080/713649965

4.1.6 Regional Distributions

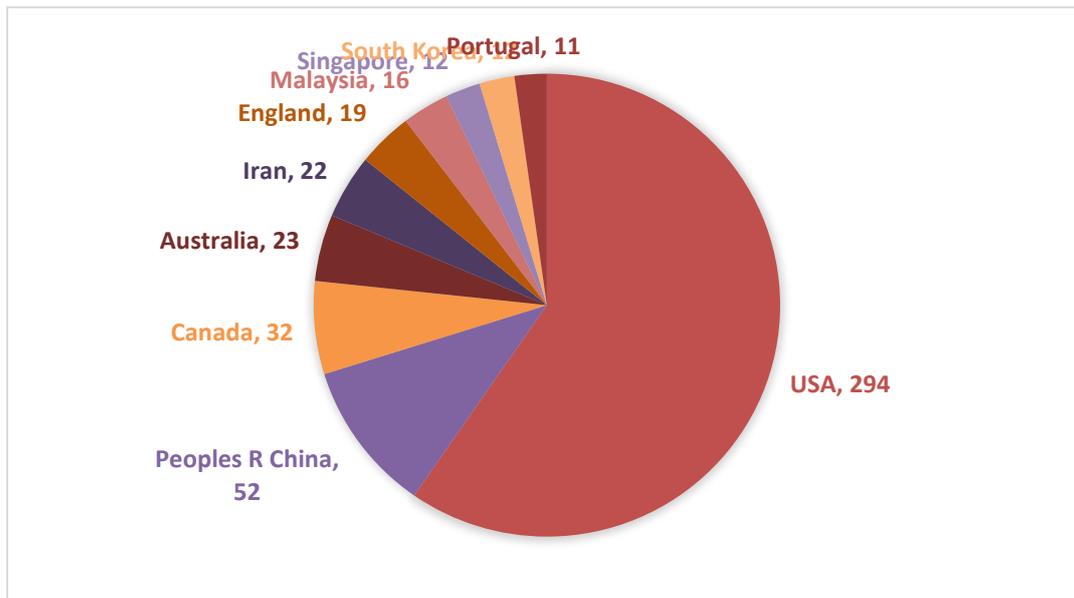


Figure 6: Number of publications published between 1992 and 2023 across the top ten countries/regions

The geographical distribution of research on religiosity and well-being reveals that the United States leads in terms of publication volume and impact, followed by other regions like China and Canada. Such distribution highlights the global relevance of this research area, with contributions from diverse cultural and academic contexts. The spread of research efforts across multiple countries suggests a growing international interest in understanding how religiosity intersects with well-being, reflecting broader societal trends towards examining holistic approaches to health (Figure 6).

4.2 Scientometric Results

4.2.1 Dual-Map Overlay

The dual-map overlay visualisation maps the relationships between citing and cited journals to provide a thorough representation of the interdisciplinary nature of research on spirituality, religion, and the well-being of the elderly. The map's clusters are colour-coded to reflect several scientific subjects, including Molecular Biology and Immunology (yellow cluster), Psychology, Education, and Social Sciences (green cluster), Health, Nursing, and Medicine (blue cluster), and Mathematics, Systems, and Mathematical Sciences (red cluster). The citation ties between nodes in these clusters are shown as lines, with thicker lines indicating deeper multidisciplinary connections. The nodes inside these clusters represent journals, with their sizes reflecting the volume of articles or citations. The religious, spiritual, and well-being aspects of the elderly population are highlighted in Figure 7.

complex network with 1,860 links and 917 nodes. This arrangement suggests a large and interrelated field that is marked by frequent references from many studies. A high silhouette score of 0.9769 was found in the network analysis, indicating significant subject similarity between the articles in each cluster. Such score demonstrates the topics' cohesiveness where research themes are well integrated, connected, and exhibit consistent citation patterns across a range of publications. Furthermore, the network's internal coherence is indicated by a harmonic mean of 0.9661, which denotes a fairly even distribution of citations among the papers. A specialised research network is also indicated by the low network density score of 0.0044. This suggests that direct citation relationships between all works are uncommon and highlights the specialised and diversified nature of research concerning the religiosity, spirituality, and well-being of the elderly population.

Table 2 denotes the top three highly influential articles regarding religiosity, spirituality, and well-being in the elderly population. The impact of these articles is assessed via three metrics: Degree, Centrality, and Sigma.

Table 2: Top three highly influential articles in religiosity, spirituality, and well-being among the elderly population based on the degree, centrality, and sigma metrics

Article	Degree	Centrality	Sigma
Malone & Dadswell (2018)	17	0.02	1.09
Lucchetti et al. (2020)	3	0.01	1.01
Abdolahrezaee et al. (2020)	4	0.01	1.01

The Degree metric indicates the number of times an article is directly referenced or cited by other studies. The articles by Abdolahrezaee et al. (2020) and Lucchetti et al. (2020) recorded low Degree values of 3 and 4, respectively. It demonstrates that despite being less frequently cited, these articles still offer significant contributions to the field of study.

Meanwhile, an article's centrality in the network of references is a measure of its significance, especially concerning its connection with different research works. The article by Malone and Dadswell (2018) obtained a comparatively low Centrality score of 0.02 while the other two articles had a score of 0.01. This indicates that even though the articles are notable, they might not serve as primary connectors in the larger research network. It subsequently implies that their contribution to connecting various studies is remarkable but not highly important.

Furthermore, the Sigma metric serves as an overall assessment towards the impact and innovativeness of an article by considering its Degree and Centrality scores. The article by Malone and Dadswell (2018) recorded a slightly higher Sigma score of 1.09 than the other two articles. It implies that the article has a slightly greater innovation and influence in this field of study.

In conclusion, the results in Table 2 indicate that the article by Malone and Dadswell (2018) offers the most influential and significant contribution to the topic of religiosity, spirituality, and well-being in the elderly population. While the works by Lucchetti et al. (2020) and Abdolahrezaee et al. (2020) are also important, their impact is slightly less central in the network of references within this area of research.

4.2.3 Cluster Analysis

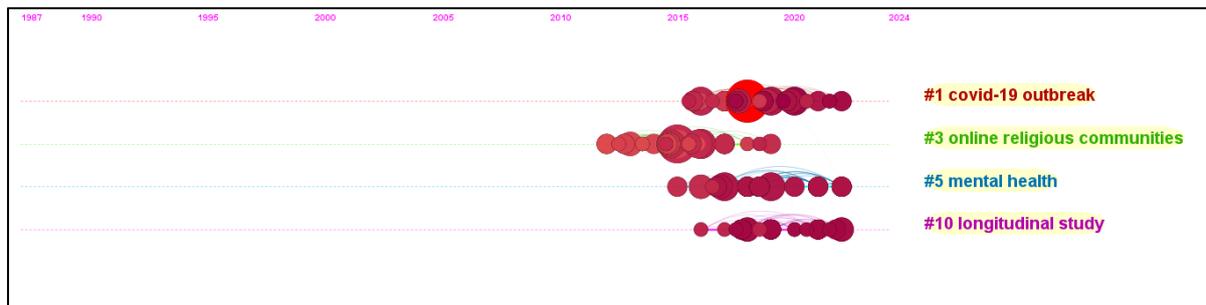


Figure 9: A summary of 11 identified document cluster lifetimes (solid lines). Cluster labels were generated from CiteSpace. Circle size corresponds to cluster size (i.e., number of publications)

Figure 9 summarises the lifetimes of 11 document clusters identified using CiteSpace, which visually illustrates the trends in the scientific literature over time. Each cluster is represented by a horizontal line with circles of varying sizes along a timeline that spans from 1987 to 2024. The size of each circle corresponds to the number of publications within that cluster, with larger circles indicating clusters with more publications. Notably, the figure highlights four specific clusters: "COVID-19 outbreak" (Cluster #1, in red), "Online religious communities" (Cluster #3, in green), "Mental health" (Cluster #5, in blue), and "Longitudinal study" (Cluster #10, in purple).

The temporal distribution of these clusters reveals that most of the research activity is concentrated from 2010 onward, with significant spikes in publications close to 2020. This timing corresponds with the global COVID-19 pandemic, which probably led to the spike in research attention within these clusters. The "COVID-19 outbreak" cluster shows significant activity circa 2020, aligning with the worldwide response to the global pandemic. The "Online religious communities" cluster shows a rise in activity in the subsequent years, indicating the shift of religious and community activities during the pandemic into digital platforms.

Meanwhile, the "Mental health" cluster denotes a wide activity timeline. It suggests that despite the ongoing research in this field, it has been particularly active over the last few years. The increased awareness of mental health issues during the global pandemic might be the trigger to such trend. However, the "Longitudinal study" cluster remains steady across time, indicating that longitudinal research has been a common aspect of the academic landscape and is particularly beneficial for tracking changes over long periods.

The solid lines represent the lives of these clusters and indicate the time duration of which particular topics have been actively researched. The forming of the "COVID-19 outbreak" cluster shows how significant shifts in the focus and volume of research can occur in response to global health issues. Furthermore, the ongoing efforts in the "Mental health" and "Longitudinal study" clusters highlight the persisting significance and relevance of these fields of study.

Such figure generally demonstrates the dynamic nature of research clusters, showing how particular topics, such as the COVID-19 pandemic, can swiftly gain prominence while others maintain long-term significance in the research community. This visualisation clearly illustrates the shifting focus of academic research in response to both global events and enduring scholarly interests.

Table 3: Major clusters from document co-citation analysis with size, homogeneity (silhouette score), and average publication year

Cluster ID	Size	Silhouette	Label (LLR)	Average Year
1	50	0.977	COVID-19 outbreak	2018
3	38	0.98	online religious communities	2015
5	32	0.997	mental health	2018
10	26	0.993	longitudinal study	2019
33	7	0.98	adult	2013

Table 3 summarises the five main clusters that were identified through document co-citation analysis, providing valuable insights into the thematic organisation of research in the field. Every cluster is distinguished by an individual Cluster ID and is defined by a variety of characteristics, such as size, silhouette score, label (derived from log-likelihood ratios), and the average year of publications.

Cluster Size describes the number of publications that form each cluster. Cluster 1 ("COVID-19 outbreak") is the largest cluster with 50 publications, demonstrating a significant amount of work on this subject. Cluster 3 ("online religious communities") contains 38 publications and denotes the increasing interest in this field, particularly in relation to the growing popularity of digital platforms over recent years. Cluster 5 ("mental health") comprises 32 publications, indicating the continued attention on mental health problems. Cluster 10 ("longitudinal study") has 26 publications and shows the research observing changes over time. Lastly, Cluster 33 ("adult") is the smallest cluster with seven publications, indicating a narrower focus within this thematic area.

The silhouette score indicates the degree of homogeneity within each cluster, with higher score suggesting a larger degree of cohesion among the publications within the cluster. As shown in Table 5, the silhouette scores in this study range from 0.977 to 0.997, indicating a high degree of homogeneity among all clusters. Cluster 5 ("mental health") has the highest silhouette score of 0.997, showing that the publications within this cluster are mostly similar in terms of their research focus and methodology. The high silhouette scores of the other clusters also indicate a strong sense of togetherness.

The dominating theme within each cluster is briefly explained by the log-likelihood ratios, from which labels for each cluster are generated. These labels inform the topic that is mainly concentrated in each cluster. The "COVID-19 outbreak" label in Cluster 1 suggests its primary focus on studies related to the global pandemic. Meanwhile, a temporal context is provided by the average year for each cluster, indicating the general publication time frame of articles in each cluster. The average time period spans from 2013 to 2019, with Cluster 33 ("adult") having the earliest average year of 2013, subsequently denoting that the studies within the cluster are older compared to the other clusters. In contrast, the most recent average year for Cluster 10 ("longitudinal study") is 2019, suggesting that the research is more recent and remains expanding.

In conclusion, Table 3 illustrates the main research themes within this field and concerns the clusters' size, cohesion, thematic concentration, and distribution across time. The strong presence of the "COVID-19 outbreak" and "mental health" clusters implies the substantial impact of recent worldwide events on the research focus, while the variety of other clusters like "online religious communities" and "longitudinal study" highlights the wide range of topics being investigated.

Table 4: Most cited articles of the top 3 clusters that emerged from the document co-citation analysis

Cluster	Most Cited Article
Cluster #0	Malone & Dadswell (2018)
	Zimmer et al. (2016)
	Koenig (2020)
	Hajinejad et al. (2019)
	Armitage & Nellums (2020)
Cluster #1	Agli et al. (2014)
	Wu & Koo (2016)
	Steptoe et al. (2015)
	McDougle et al. (2015)
	Rote et al. (2012)

Table 4 shows the most frequently cited articles within the two primary clusters identified using the document co-citation analysis. Each cluster corresponds to a certain thematic area within the research field. The publications mentioned under each cluster have the highest number of citations, indicating their significant impact within the particular research theme.

Cluster #0 comprises articles that have received the highest number of citations in relation to its distinctive topic focus. The most prominent article in this cluster was authored by Malone and Dadswell (2018), which has gained much attention and citations. Other notable works in this cluster include Zimmer et al. (2016), Koenig (2020), Hajinejad et al. (2019), and Armitage and Nellums (2020). This implies that these publications offer fundamental knowledge and insights that are frequently cited by future research in this thematic area.

Another important cluster is Cluster #1, which contains the most frequently referenced articles. The article by Agli et al. (2014) is a notable point of reference, followed by the works by Wu and Koo (2016), Steptoe et al. (2015), McDougle et al. (2015), and Rote et al. (2012). These publications have played an essential part in the study themes of Cluster #1 as they offer a significant influence on the academic discussion.

To summarise, the document co-citation analysis results in Table 6 denote the most prominent articles in the leading two clusters. The frequency of which these publications are cited emphasises their level of significance within the clusters, highlighting their role in defining the research landscape in these themes. The existence of numerous widely referenced publications inside each cluster also reflects the profoundness of the research activity conducted in these particular fields.

5.0 DISCUSSION AND LIMITATIONS

Our scientometric examination of existing research on spirituality, religiosity, and well-being among the elderly population denotes an upward publication trend from 1992 to 2023. Such rise is indicative of the academics' increased attention towards the nexus between spirituality and health alongside its relation to ageing. The number of annual publications was quite low in the early 1990s, but it later increased to more than fifty over the last several years. The noteworthy increase in research endeavours, particularly in the last ten years, suggests a growing acknowledgement towards the significance of spiritual and religious elements in diverse aspects of elderly health and welfare. This shows how the field has changed over time, with a notable rise in research production following an increased understanding of the crucial role played by spirituality in enhancing older people's quality of life.

Several important clusters were detected using document co-citation analysis, which helped to identify the central topics within this research domain. The most prominent cluster focuses on the COVID-19 pandemic, highlighting how major shifts in global health crises can cause research priorities to shift considerably towards the goal of understanding the spiritual requirements of the elderly during such tragedies. Another important cluster explores the "online religious communities", which reflects the increasing interest in how older people use digital platforms for spiritual participation, particularly in light of policies that discourage isolation from their peers. Furthermore, mental health continues to be a prevalent theme, with such cluster is oriented towards understanding the complex interaction between spirituality and mental health in older persons. The formation of these clusters demonstrates the dynamic nature of the field and the wide range of subjects being studied, from the integration of spirituality into mental health treatments to pandemic-related concerns.

Citation metrics were also used to identify the most influential articles in the field of elderly's well-being, spirituality, and religiosity. The work by Malone and Dadswell (2018) has received major attention and the large citation counts demonstrate its crucial influence on the debate regarding ageing and spirituality. Other noteworthy publications include Zimmer et al. (2016) and Koenig (2020), which also play a significant role in developing theoretical frameworks and offer empirical evidence on the value of spirituality in improving older people's quality of life. Their large number of citations further indicates the important impact of these works on future investigations alongside their contribution to the current academic discussion on spirituality and health in elderly people.

Several limitations are acknowledged in this work, especially regarding the use of certain databases in scientometric analyses, such as Web of Science and Scopus. These databases may underrepresent relevant but less-cited studies because they frequently have biases associated with the inclusion of only high-impact journals. Additionally, the use of these databases may lead to linguistic bias due to the exclusion of non-English publications as well as grey literature, which may contain insightful information. These limitations should be taken into account by future scientometric studies, particularly those exploring the field of elderly's well-being.

6.0 RECOMMENDATIONS FOR FUTURE RESEARCH

Future studies are recommended to address the gaps on the relationship between spirituality, religiosity, and elderly's well-being. As current research mainly focuses on the United States and Europe, there is an urgent need for more thorough investigations that examine these situations across various cultural contexts (Zimmer et al., 2016). Future research should also incorporate religious and spiritual support into senior healthcare procedures to improve their general health and quality of life (Keenan & Kirwan, 2018). This method will advance the current understanding of how spirituality and religion affect long life and healthy ageing.

Furthermore, cross-disciplinary research that integrates knowledge from sociology, psychology, and theology is imperative to uphold the compression of elderly's well-being. Our results demonstrate the efficacy of integrative techniques in meeting the complex needs of older adults, especially those who are mentally ill (Silva & Teixeira, 2017). Furthermore, longitudinal research is essential to investigate the long-term impacts of spirituality and religiosity on different facets of elderly health, including mental and emotional well-being (Remm et al., 2021). In the context of remote care and social distancing, emerging technologies like telehealth and virtual religious services also play an even greater part in fulfilling the spiritual needs of the elderly (Ahn & Hyun, 2019). Incorporating these tools into contemporary elder care systems can improve spiritual and mental health outcomes.

7.0 CONCLUSION

The results of this scientometric investigation highlight the importance of spirituality and religion to older people's overall health. Research in this area has expanded tremendously over the last three decades, indicating a growing attention and understanding to the significance of these elements in promoting mental health and social support, ultimately raising overall life satisfaction among the elderly. The analysis also identified key trends with prominent research impact as well as the increased emphasis on mental health outcomes and the effects of international events like the COVID-19 pandemic. This subsequently calls for ongoing research in underrepresented fields, especially the incorporation of spiritual care into health policies and the financial viability of such interventions. Future studies should focus on addressing the current gaps in cross-cultural research as well as investigating the long-term impacts of spirituality on the well-being of the elderly. These improvements will lead to the provision of better support towards the ageing population's holistic health, ensuring that elder care frameworks effectively integrate spiritual and religious practices.

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