

RESEARCH ARTICLE

BIBLIOMETRIC ANALYSIS OF NURSING HOMES STUDIES IN THE FRAMEWORK OF HEALTH MANAGEMENT

Arzu KURŞUN *

ABSTRACT

Aging is one the unavoidable facts of humans and population aging is a major emerging problem for both developed and developing countries. Therefore, health and care in old age has been placed at the top of the agenda of countries. The study aims to bibliometrically analyze research on nursing home and identify the contribution of the field of health management to the development of this subject. Bibliometric analysis method was used in the study. As a citations, although there were 22 citations on the nursing home in 2008, with a total of 3039 citations made in 2021. The number of citations made in September/2022 is 2800. The subject received a total of 20.385 citations. The number of citations to a publication, excluding self-citations, is 16.634 and according to Scopus, its h-index is 57. As a journal, the Journal of Clinical Nursing comes first. 'Journal of Clinical Nursing' ranks first with 126 articles, 2671 citations, and 86 total link strength. Among the top 25 journals, six journals are in the fields of health management, policies and informatics. It is in the top three of the "Journal of The American Medical Director Association", which has studies in the field of health policy. This result means that the nursing home issue has a high trend in the field of health policy. The first most cited article with 197 citations is 'An international definition for nursing home' by Angela M. Sanford et al. (2015). As a result, there is extremely little research on this topic in the field of health management. However, nursing homes are not only a maintenance issue but also a big management issue. Therefore, the issue of nursing homes, which will be covered more in health management journals, will serve as a projection for creating a planned and practical health policy in relation to the care of the older people.

Keywords: Bibliometric analysis, nursing home, health management, Scopus, old age population.

ARTICLE INFO

* Assit. Prof. Dr., Giresun University, Occupational High School of Health Services, a.kurshun@gmail.com

 <https://orcid.org/0000-0001-9560-7689>

Received: 12.12.2022

Accepted: 04.04.2023

Cite This Paper:

Kurşun, A. (2023). Huzurevi konulu çalışmaların sağlık yönetimi çerçevesinde bibliyometrik analizi. Hacettepe Sağlık İdaresi Dergisi, 26(2), 425-438

HUZUREVİ KONULU ÇALIŞMALARIN SAĞLIK YÖNETİMİ ÇERÇEVESİNDE BİBLİYOMETRİK ANALİZİ

Arzu KURŞUN *

ÖZ

Yaşlanma, insanların kaçınılmaz gerçeklerinden biridir ve nüfusun yaşlanması hem gelişmiş hem de gelişmekte olan ülkeler için ortaya çıkan büyük bir sorundur. Bu nedenle yaşlılıkta sağlık ve bakım, ülkelerin gündeminin ilk sıralarına yerleşmiştir. Bu çalışmanın amacı, huzurevi ile ilgili araştırmaları bibliyometrik olarak incelemek ve sağlık yönetimi alanının bu konunun gelişimine katkısını belirlemektir. Çalışmada bibliyometrik analiz yöntemi kullanılmıştır. Atıf olarak huzurevine 2008 yılında 22 atıf yapılmış olmasına rağmen 2021 yılında toplam 3039 atıf yapılmıştır. Eylül/2022 yılında yapılan atıf sayısı 2800'dür. Konuya kendinden alıntılar dahil toplam 20.385 atıf yapılmıştır. Bir yayına yapılan atıf sayısı, öz atıflar hariç 16.634'tür ve Scopus'a göre h-endeksi 57'dir. Dergi olarak ilk sırada 'Journal of Clinical Nursing' gelmektedir. 'Journal of Clinical Nursing' 126 makale, 2671 atıf ve 86 toplam bağlantı gücü ile ilk sırada yer almaktadır. İlk 25 dergi arasında 6 dergi ise sağlık yönetimi, politikası ve bilişimi alanındadır. Sağlık politikası alanında çalışmaları bulunan "Journal of The American Medical Director Association" dergisi de ilk üçte yer almaktadır. Bu sonuç huzurevi konusunun sağlık politikası alanında yüksek bir trende sahip olduğu anlamına gelmektedir. Ayrıca 197 atıf ile en çok atıf yapılan ilk makale, Angela M. Sanford ve arkadaşlarına (2015) aittir. Sonuçlara göre, sağlık yönetimi alanında bu konuda oldukça az araştırma bulunmaktadır. Ancak huzurevleri sadece bir bakım sorunu değil, aynı zamanda büyük bir yönetim sorunudur. Bu nedenle sağlık yönetimi dergilerinde huzurevi konusunun daha fazla ele alınması, yaşlı bakım hakkında planlı ve uygulamaya dönük bir sağlık politikasının oluşturulmasında projeksiyon vazifesi görecektir.

Anahtar kelimeler: Bibliyometrik analiz, huzurevi, sağlık yönetimi, Scopus, yaşlı nüfus.

MAKALE HAKKINDA

* Dr. Öğr. Üyesi, Giresun Üniversitesi Sağlık Hizmetleri MYO, Tıbbi Hizmetler ve Teknikler Bölümü, a.kurshun@gmail.com

 <https://orcid.org/0000-0001-9560-7689>

Gönderim Tarihi: 12.12.2022

Kabul Tarihi: 04.04.2023

Atıfta Bulunmak İçin:

Kurşun, A. (2023). Huzurevi konulu çalışmaların sağlık yönetimi çerçevesinde bibliyometrik analizi. Hacettepe Sağlık İdaresi Dergisi, 26(2), 425-438

I. INTRODUCTION

Aging is one of the unavoidable facts of humans and population aging is a major emerging problem for both developed and developing countries. The development of health care, improved socio-economic situation and nutrition have led to an increase in life expectancy (Jadav, 2018). People all over the world are now living longer. The ratio of older people in the population is growing in all countries of the world (World Health Organization [WHO], 2022). According to current statistics, the percentage of the oldest adults (80 years and over) in Europe was 5.6% in 2015 and this percentage is estimated to increase more than double to 12.3% by 2080 (Stein et al., 2019). “Old age population” is used to describe the population of individuals aged 65 and over (Weitzel et al., 2021).

1 in 6 people in the world will be 60 years or older by 2030. The population aged 60 and over has increased from 1 billion in 2020 to 1.4 billion now. The world population aged 60 and over will double by 2050 (2.1 billion). The number of people aged 80 and over is expected to triple between 2020 and 2050, reaching 426 million (WHO, 2022). An aging population globally has encouraged researchers to focus on chronic diseases, preventive medicine, and risk factors in preparation for the health problems. The global economy and society will suffer from changes in the age distribution of the population (Martínez-Ezquerro et al., 2019).

This increasingly aging population has brought along chronic diseases associated with aging such as dementia, cardiovascular disease, and arthritis. Chronic diseases are associated with disability and functional impairment, and older adults who need daily qualified nursing care are often placed in nursing homes or long-term care homes (MClinPharm et al., 2019). It also means an increase in the number of older people living in nursing homes (Reilev et al., 2019). Most older people will have complex and difficult needs and will need long-term care in a nursing home at some point. Between 12% and 38% of the elderly die in nursing homes in Europe and this percentage is expected to raise in the future (Smets et al., 2018).

Nursing home managers are an important leader influencing both the quality of care and the working conditions among staff. Responsibilities of nursing home administrators are multifaceted and complex. Managers are responsible for staffing issues, balancing budgets, improving health care, handling daily inquiries, as well as monitoring and maintaining standards of care (Håkanson et al., 2014; Backman et al., 2021). However, factors such as high staff turnover rates, organizational process changes, increasing number of residents with complex care needs, insufficient financing, which cause interruption of care, make it difficult to provide high quality care to nursing home residents (Asante et al., 2021). Despite the recognition of the importance of the role of nursing home managers, research on nursing homes has rarely focused on these special staff. Many studies have been done on nurses, healthcare workers, and the older people in nursing homes. As a result, there is a lack of information about this staff group whose skills and leadership qualities are argued to be critical to the operation and corporate culture of a nursing home (Orellana et al., 2017).

The aim of this study is to emphasize the importance of the health care needs that will arise in nursing homes in our world where the elderly population is increasing. The secondary purpose of this study is to bibliometrically analyze research on nursing home and identify the contribution of the field of health management to the development of this subject. This study provides readers with information about (1) citation and publication structure of nursing home, (2) co-citations sources, (3) the most cited first 10 papers in nursing home, (4) bibliographic coupling network of nursing home for countries and organizations, (5) co-word analysis. Understanding nursing home researches gives us with new perspectives on an issue that needs to be properly managed in the near future. Additionally, this study can guide researchers to understand and develop trends, policies and researches in the field of health management related to nursing homes.

1.1. Nursing homes

The aging population increases the need for care and health services. At the same time, demographic aging reduces the ratio of the working-age population, deepening the longstanding problem of recruiting and retaining sufficient numbers of trained nurses. The deficiency of nurses also leads to a competition among health services for qualified worker, in which the less prestigious aged care services may exit from the market (Bratt and Gautun, 2018). Nursing homes are different from long-term aged care hospitals. Registered nurses are the only health care providers without a medical doctor in nursing homes and are responsible for patient safety as well as healthcare (Cho et al., 2020). Therefore, adequate nursing staff in nursing homes is thought to affect life and quality of care for residents (Mueller et al., 2006).

Many nurses and nursing assistants often work in more than one facility. Nursing homes also receive services from clinicians, healthcare professionals, dialysis technicians, and other non-care staff who visit multiple homes (Chen et al., 2021). An expert panel of health economists and health care researchers, and nurse researchers, educators, and administrators in long-term care by the John A. Hartford Foundation Institute for Geriatric Nursing recommended a minimum of 4.5 hours of nursing care each day for each nursing home resident (Mueller et al., 2006). However, nursing home work environment studies are limited in both number and scope (White et al., 2020).

Nursing home visits can be used to effectively transition older adults from an inpatient to an outpatient setting, reduce costs and improve self-management skills (Auger et al., 2018). Additionally, the quality of care varies greatly between nursing homes. A 2014 report from the Department of Health and Human Services found that from 2012, 22% of Medicare beneficiaries receiving post-acute care in nursing homes experienced adverse events, resulting in an estimated \$2.8 billion annual overspend on hospitalizations (White et al., 2020). Health systems around the world face challenges in financing care of an aging population with multiple diseases and complex interventions (Strandås et al., 2018). As a conclusion, considering the physical and mental conditions of the elderly, nursing homes are needed and it is very important to ensure the quality of care in these centers (Khodaveisi et al., 2018).

II. MATERIAL AND METHOD

Bibliometric analysis methods were used in this study. Bibliometrics helps to discover, organize and analyze large amounts of data (Gaviria-Marin et al., 2018). Bibliometrics is a field of research that applies mathematical and statistical techniques to examine publishing patterns in the distribution of information and a set of tools (Danvila-del-Valle et al., 2019). Bibliometric analysis presents researchers and relevant stakeholders the opportunity to gain an informative understanding of the field of study and encourages interdisciplinary collaboration (Guo et al., 2020). The study was analyzed using bibliometric analysis techniques such as performance analysis (total publications, total citations etc.), science mapping (citation, co-citation, bibliographic coupling, co-word analyses etc.), and network analysis (degree of centrality, clustering, visualization etc.) (Donthu et al., 2021). Additionally, Vosviewer 1.6.18 package program was used to establish network links.

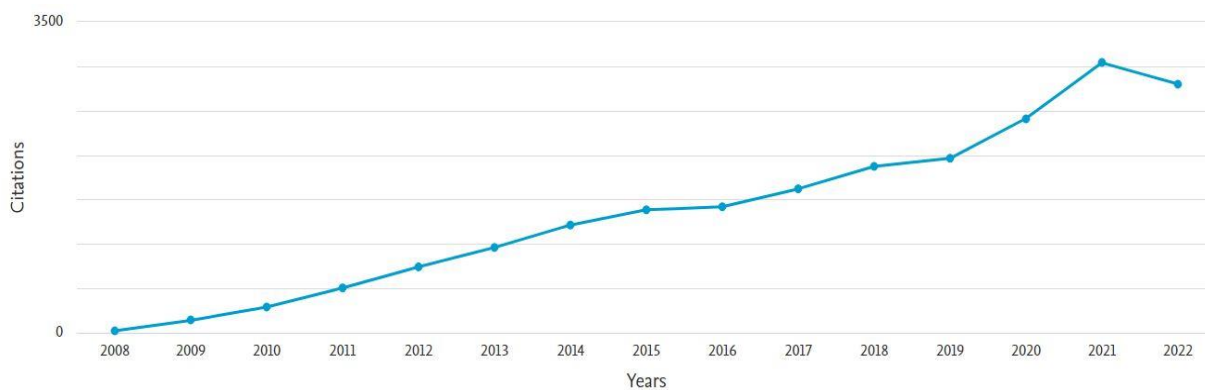
Scopus was used as a database in the study. Because some studies have found that Scopus is more beneficial than Web of Science (Sánchez et al., 2017). Then, the keywords were determined. The words 'Nurse Home' OR 'Nursing Home' AND 'Health Management' were searched on Scopus. As a second step, the literature review has been limited to health professions, business-management-accounting, and nursing. After the subject areas were determined, all journals with weak links were removed. The study also includes studies between the years 2008-2022. Finally, by selecting the "article" and "review" options, a total of 1402 documents were found.

III. RESULTS

3.1. Performance Analysis

Figure 1 shows the trend of citation to the topic 'nursing home' over 15 years. Although there were 22 citations on this topic in 2008, it has followed a growing trend over time, with a total of 3039 citations made in 2021. The number of citations made in September/2022 is 2800. The subject received a total of 20385 citations, including self-cited citations between the examined dates. The number of citations to a publication, excluding self-citations, is 16634 and according to Scopus, its h-index is 57. Generally, the citation and publication status of 'nurse home' in many health sciences and management journals have an increasing trend.

Figure 1. Citations to Nurse Home by Years



3.2. Top Journals

Table 1 shows the bibliometric results of the top 25 journals for nurse home. According to Table 1, 'Journal of Clinical Nursing' ranks first with 126 articles, 2671 citations, and 86 total link strength. It is followed by the 'International Journal of Nursing Studies' with 55 articles, 1749 citations and 50 total link strength. In the third place is the 'Journal of The American Medical Directors Association' with 62 articles, 1668 citations and 46 total link strength. The H-index of all three journals according to the scimago journal is, respectively 109, 121, and 102. Additionally, the JCR Quartile in all three journals is Q1. It is very important that the "Journal of The American Medical Directors Association", which has studies in the field of health policy, is in the top three. This result means that the nurse home issue has a high trend in the field of health policy.

Furthermore, 6 journals in the first 25 journals, health management, policy, and informatics journals, may indicate that the nursing home issue will be among the current issues in the future. Considering the co-citations sources, 'Journal of Advanced Nursing' takes the first place with 910 citations and 24748 total link strength. In second place is the 'Journal of Clinical Nursing' with 506 citations and 14926 total link strength. It is followed by the 'gerontologist' journal with 354 citations and 7753 total link strength, taking the third place. Both bibliometric analysis include the 'Journal of Clinical Nursing' and nurse home is the leading journal in its field. The visual of the co-citations source analysis is given in Figure 2.

3.3. Top-cited Articles

Table 2 shows the most cited first 10 studies in nurse home. The first most cited article with 197 citations is 'An international definition for nursing home' by Angela M. Sanford et al. (2015). In this study, information about the term 'nurse home' was requested from 17 countries with the survey

method and different definitions emerged. 'What impact does nursing care left undone have on patient outcomes? Review of the literature' was placed in the second place with 157 citations.

This study was conducted by Alejandra Recio-Saucedo et al. (2018). It also examined the impact of non-nursing home nursing care on patient outcomes. Health staffs and patients identified that the care given or received is not effective when the number of staff is insufficient. 'Disparities in Pain Management Between Cognitively Intact and Cognitively Impaired Nursing Home Residents' is the third place with 128 citations, by Kimberly S. Reynolds et al. (2008). This study tested the relationship between the cognitive disorders of nursing home residents and pain management practices. They conclude that pain is not adequately defined in nursing home residents with cognitive impairment and pain management.

Figure 3 shows the most influential authors about nurse home. The most productive author on this subject is Nicholas G. Castle, with 10 publications. Furthermore, the author's nurse home-oriented articles received a total of 206 citations. Marilyn J. Rantz ranks second in the list with 8 publications and received a total of 239 citations. Colleen Galambos ranks third with 7 publications and has a total of 203 citations.

Figure 3. The Most Influential Writers in Nurse Home

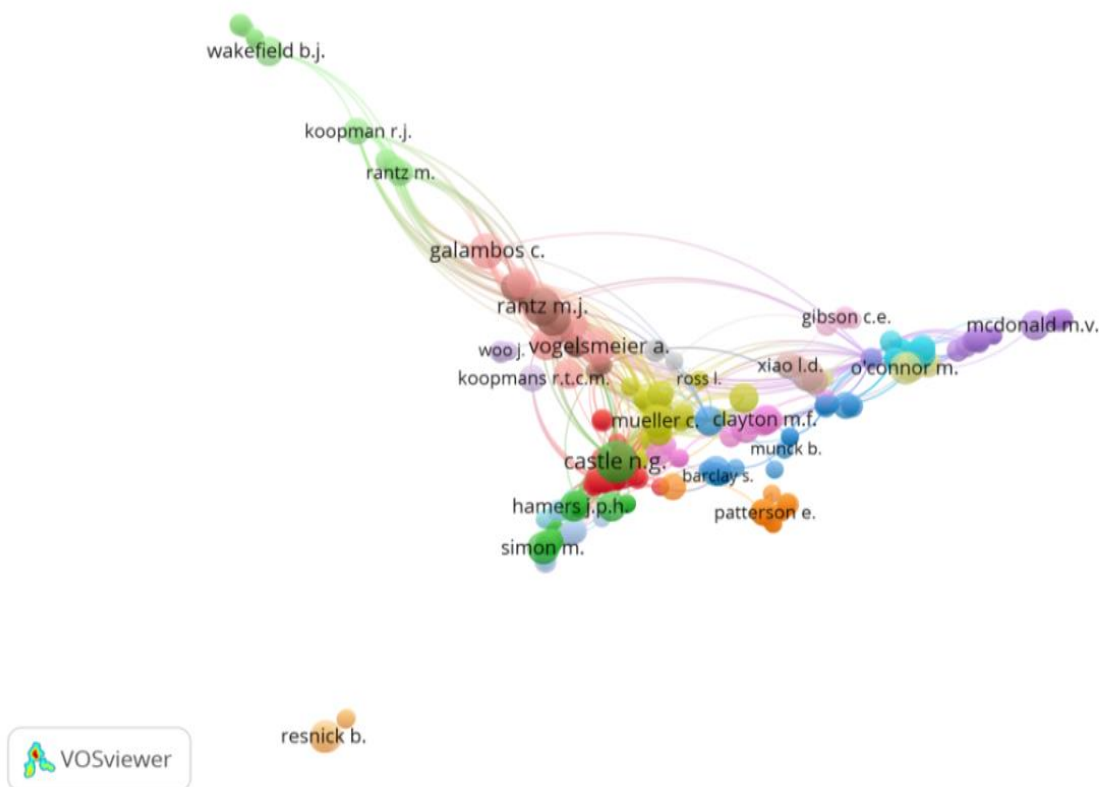
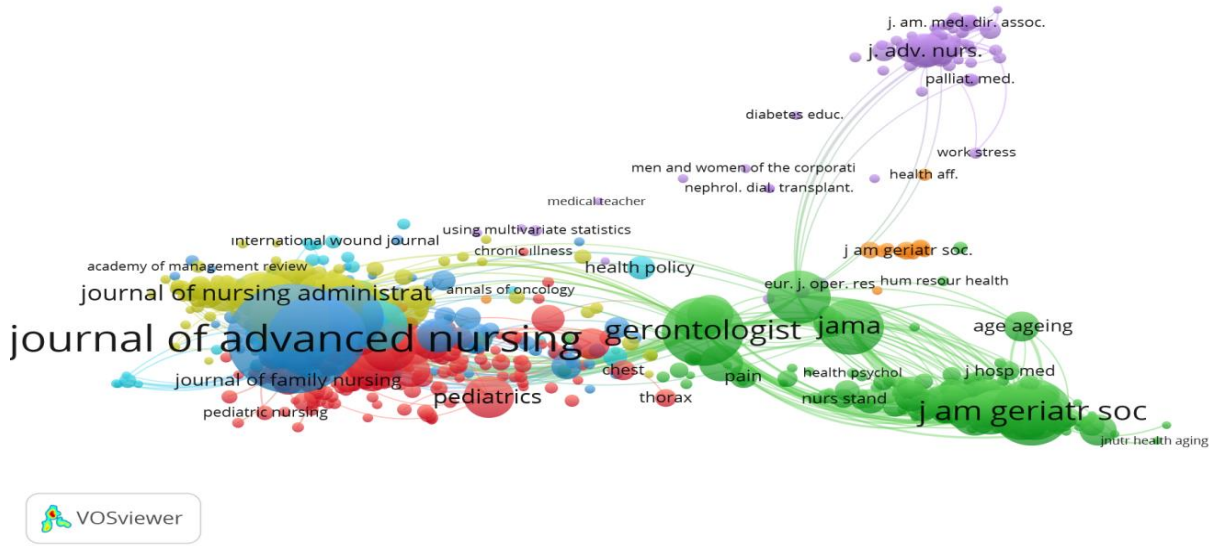


Table 1. Top Journals for Bibliometric Reviews of Nurse Home

	Sources	Health Policy and Management Journal	Articles	Citations	Total Link Strength	Publisher	h-index	JCR Quartile	Scopus Research Category
1	Journal of Clinical Nursing	No	126	2671	86	Wiley-Blackwell	109	Q1	Nursing
2	International Journal of Nursing Studies	No	55	1749	50	Elsevier	121	Q1	Nursing
3	Journal of The American Medical Directors Association	Yes	62	1668	46	Elsevier	102	Q1	Nursing
4	Journal of Advanced Nursing	No	77	1455	49	Wiley-Blackwell	161	Q1	Nursing
5	Journal of Nursing Management	Yes	61	1175	60	Wiley-Blackwell	83	Q1	Business, Management
6	Telemedicine and E-Health	Yes	28	762	7	Mary Ann Liebert	81	Q1-Q2	Health Professions
7	Home Healthcare Nurse	No	95	492	25	Lippincott, Williams & Wilkins	-	-	Nursing
8	Journal of Palliative Medicine	No	23	429	10	Mary Ann Liebert	95	Q1	Nursing
9	Nurse Education Today	No	19	423	5	Churchill Livingstone	84	Q1	Nursing
10	Journal of Pain and Symptom Management	No	21	414	15	Elsevier	147	Q1	Nursing
11	Health Care Management Review	Yes	15	407	26	Lippincott, Williams & Wilkins	59	Q1	Business, Management
12	International Journal of Palliative Nursing	No	28	367	12	MA Healthcare	42	Q2	Nursing
13	British Journal of Community	No	70	360	20	MA Healthcare	31	Q3	Nursing
14	Public Health Nursing	No	34	331	16	Wiley-Blackwell	57	Q2	Nursing
15	Journal of Applied gerontology	No	12	317	24	SAGE Publications	54	Q1	Nursing
16	Geriatric Nursing	No	30	311	24	Mosby Inc.	45	Q2	Nursing
17	Health and Social Care in The Community	Yes	21	297	30	Wiley-Blackwell	71	Q2	Medicine/Health Policy
18	International Nursing Review	No	18	286	6	Wiley-Blackwell	56	Q1	Nursing
19	CIN - Computers Informatics Nursing	Yes	16	272	9	Lippincott, Williams & Wilkins	47	Q3	Medicine/Health Informatics
20	Nursing Outlook	No	16	230	26	Mosby Inc.	61	Q1	Nursing
21	Journal of The American Academy of Nurse Practitioner	No	7	202	1	Wiley-Blackwell	48	Q2	Nursing
22	Contemporary Nurse	No	15	200	5	Taylor and Francis	45	Q2	Nursing
23	American Journal of Nursing	No	23	166	8	Lippincott, Williams & Wilkins	58	Q3	Nursing
24	Clinical Nursing Research	No	6	160	2	SAGE Publications	44	Q2	Nursing
25	Home Healthcare Now	Yes	62	158	30	Lippincott, Williams & Wilkins	27	Q3	Nursing

Figure 2. Co-Citations Sources in Nurse Home



According to the co-authorship relationships, almost all of the co-authorships on the nurse home are affiliated with the same university (University of Missouri) and all universities are located in the USA. The authors with the strongest co-authorship links are Marilyn J. Rantz, Colleen Galambos and Amy Vogelsmeier, respectively. Almost all authors work under the same institution naturally strengthened the links of co-authorship. However, co-authorship articles remained at the national level and international links could not be established.

Table 2. The Most Cited Papers in Nurse Home

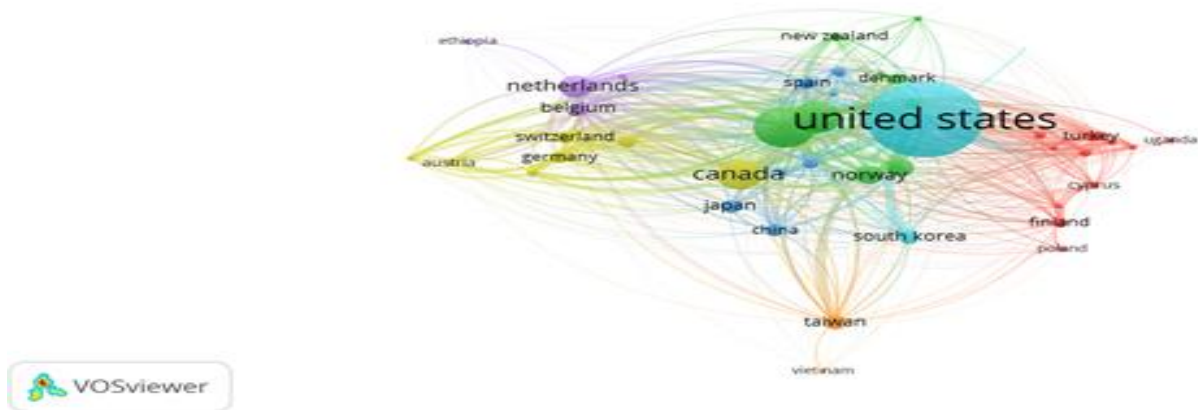
Rank	Journal	TC	Title	First Author	Year
1	JAMDA	197	'An International Definition for "Nursing Home'	Sanford A.M.	2015
2	JCN	157	'What impact does nursing care left undone have on patient outcomes? Review of the literature'	Recio-Saucedo A.	2018
3	JPSM	128	'Disparities in Pain Management Between Cognitively Intact and Cognitively Impaired Nursing Home Residents'	Reynolds K.S.	2008
4	IJNS	118	'Determinants of moral distress in daily nursing practice: A cross sectional correlational questionnaire survey'	De Veer A.J.E.	2013
5	IJNS	116	'Back or neck-pain-related disability of nursing staff in hospitals, nursing homes and home care in seven countries—results from the European NEXT-Study'	Simon M.	2008
6	JAN	114	'A systematic review of the effectiveness of advanced practice nurses in long-term care'	Donald F.	2013
7	JAG	113	'Nursing Home Staff Turnover and Retention: An Analysis of National Level Data'	Donoghue C.	2010
8	JAMDA	111	'Nurse Staffing Impact on Quality of Care in Nursing Homes: A Systematic Review of Longitudinal Studies'	Backhaus R.	2014
9	JMN	108	'Work environment, job satisfaction, stress and burnout among haemodialysis nurses'	Hayes B.	2015
10	NEJM	103	'Incident SARS-CoV-2 Infection among mRNA-Vaccinated and Unvaccinated Nursing Home Residents'	White E.M.	2020

TC: Total number of citations; C/Y: Citations per year; JAMDA: Journal of the American Medical Directors Association; JCN: Journal of Clinical Nursing; JPSM: Journal of Pain and Symptom Management; IJNS: The International Journal of Nursing Studies; JAN: Journal of Advanced Nursing; JAG: Journal of Applied Gerontology; JMN: Journal of Nursing Management; NEJM: The New England Journal of Medicine

3.4. Bibliographic Coupling Network of Nurse Home for Countries and Organizations

Bibliographic coupling indicates the extent to which two articles cite to the same articles. While the bibliographic link has been criticized for speculating on future research based on current trends, it is still a useful tool for positioning current contributions to the field (Bernatović et al., 2022). In Figure 4, the bibliometric coupling of the most productive and effective countries in nurse home is given.

Figure 4. Bibliometric Coupling of The Most Efficient and Effective Countries in Nurse Home



The United States is the most productive and effective country for nurse home with 668 documents, 8419 citation, and 13401 total link strength. The United Kingdom is in second place with 190 documents, 2951 citation, and 6862 total link strength; 116 documents in Australia ranks third with 2412 citation and 6476 total link strength. Canada (2337 citations), Netherlands (1522 citations), Norway (958 citations), Italy (744 citations), Sweden (727 citations), Germany (697 citations), and Hong kong (544 citations) are listed in the bibliometric coupling category, respectively. It is remarkable that there is only one Asian country among the top 10 countries. Additionally, Turkey ranks 20th with 11 documents, 242 citation and 345 total link strength. The aging of the population is one of the reasons why European countries are in the top rank. South Korea, China, Japan, Taiwan, and Lebanon are ranked in the top 20 countries. Nurse home literature is generally concentrated in America, Europe and The Far East countries.

The bibliometric coupling of the most effective institutions for the nursing home was also examined. At the top of the list is Sinclair School of Nursing (10 documents, 157 citations, 861 total link strength) affiliated to the University of Missouri from the USA. This institution is highly developed in co-authorship and is a school that has contributed to the literature on nurse home. It is followed by Lawrence S. Bloomberg Faculty of Nursing (9 documents, 202 citations, 537 total link strength) from the University of Toronto, Canada. Department of Nursing (7 documents, 205 citations, 367 total link strength) of Umeå University, Sweden, comes in third place. Looking at the top 10, there are 4 America, 3 Canada, 1 Sweden, 1 United Kingdom and 1 Hong Kong institutions.

3.5. Co-word Analysis

Co-word analysis is a content technique that is effective in mapping the strength of the relationship between information items in textual data. Visualizing results with bibliometric mapping based on co-word analysis is a listing of the most important keywords for each research area (De la Hoz-Correa et al., 2018). The co-word analysis of this study is shown in Figure 5.

Far East countries. Finally, nurse home has a strong relationship with topics such as long-term care, palliative care, heart failure, telehealth, primary care, telemedicine, quality improvement, patient safety, health promotion.

It is recommended to conduct research on many subjects such as patient complaints management, patient rights, medical social work, home care services, health expenditures, cost management in nurses' homes, facility security, human resources planning and data-based management related to the field of health management.

Ethical Approval: Ethics committee report is not required for this study.

REFERENCES

- Auger, K. A., Simmons, J. M., Tubbs-Cooley, H. L., Sucharew, H. J., Statile, A. M., Pickler, R. H., Sauers-Ford, H. S., Gold, J. M., Khoury, J. C., Beck, A. F., Wade-Murphy, S., Kuhnell, P., Shah, S. S., & H2O Trial study group (2018). Postdischarge nurse home visits and reuse: The hospital to home outcomes (H2O) trial. *Pediatrics*, *142*(1), e20173919. <https://doi.org/10.1542/peds.2017-3919>
- Asante, B. L., Zúñiga, F., & Favez, L. (2021). Quality of care is what we make of it: a qualitative study of managers' perspectives on quality of care in high-performing nursing homes. *BMC Health Services Research*, *21*, 1090. <https://doi.org/10.1186/s12913-021-07113-9>
- Backhaus, R., Verbeek, H., Van Rossum, E., Capezuti, E., & Hamers, J. P. (2014). Nurse staffing impact on quality of care in nursing homes: A systematic review of longitudinal studies. *Journal of the American Medical Directors Association*, *15*(6), 383-393. <https://doi.org/10.1016/j.jamda.2013.12.080>
- Backman, A., Lindkvist, M., Lövheim, H., Sjögren, K., & Edvardsson, D. (2021). Longitudinal changes in nursing home leadership, direct care staff job strain and social support in Swedish nursing homes—findings from the U-AGE SWENIS study. *International Journal of Older People Nursing*, *18*, 1377-1388. <https://doi.org/10.1111/jocn.15999>
- Bratt, C., & Gautun, H. (2018). Should I stay or should I go? Nurses' wishes to leave nursing homes and home nursing. *Journal of Nursing Management*, *26*, 1074-1082. <https://doi.org/10.1111/jonm.12639>
- Bernatović, I., Gomezel, A. S., & Černe, M. (2022). Mapping the knowledge-hiding field and its future prospects: A bibliometric co-citation, co-word, and coupling analysis. *Knowledge Management Research & Practice*, *20*(3), 394-409. <https://doi.org/10.1080/14778238.2021.1945963>
- Castle, N.G., Furnier, J., Ferguson-Rome, J. C., Olson, D., & Johs-Artisensi, J. (2015). Quality of care and long-term care administrators' education: Does it make a difference?. *Health Care Management Review*, *40*(1), 35-45. <https://doi.org/10.1097/HMR.0000000000000007>
- Chen, M.K., Chevalier, J. A., & Long, E. F. (2020). Nursing home staff networks and COVID-19. *National Bureau of Economic Research*. <https://doi.org/10.3386/w27608>
- Cho, E., Kim, I. S., Lee, T. W., Kim, G. S., Lee, H., & Min, D. (2020). Effects of registered nurse staffing on quality of care and resident outcomes in nursing homes. *Geriatric Nursing*, *41*(6), 685-691. <https://doi.org/10.1016/j.gerinurse.2020.04.001>

- Danvila-del-valle, I., Estévez-mendoza, C., & Lara, F. J. (2019). Human resources training: A bibliometric analysis. *Journal of Business Research*, 101, 627-636.
- De la Hoz-Correa, A., Muñoz-Leiva, F., & Bakucz, M. (2018). Past themes and future trends in medical tourism research: A co-word analysis. *Tourism Management*, 65, 200-211. <http://dx.doi.org/10.1016/j.tourman.2017.10.001>
- De Veer, A. J., Francke, A. L., Struijs, A., & Willems, D. L. (2013). Determinants of moral distress in daily nursing practice: A cross sectional correlational questionnaire survey. *International journal of Nursing Studies*, 50(1), 100-108. <https://doi.org/10.1016/j.ijnurstu.2012.08.017>
- Donald, F., Martin-Misener, R., Carter, N., Donald, E. E., Kaasalainen, S., Wickson-Griffiths, A., Lloyd, M., Akhtar-Danesh, N., & DiCenso, A. (2013). A systematic review of the effectiveness of advanced practice nurses in long-term care. *Journal of advanced nursing*, 69(10), 2148-2161. <https://doi.org/10.1111/jan.12140>
- Donoghue, C. (2010). Nursing home staff turnover and retention: An analysis of national level data. *Journal of Applied Gerontology*, 29(1), 89-106. <https://doi.org/10.1177/0733464809334899>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296.
- Gaviria-Marin, M., Merigo, J. M., & Popa, S. (2018). Twenty years of the journal of knowledge management: A bibliometric analysis. *Journal of Knowledge Management*, 22(8), 1655-1687. <https://doi.org/10.1108/JKM-10-2017-0497>
- Guo, Y., Hao, Z., Zhao, S., Gong, J., & Yang, F. (2020). Artificial intelligence in health care: Bibliometric analysis. *Journal of Medical Internet Research*, 22(7), e18228. <https://doi.org/10.2196/18228>
- Håkanson, C., Cronfalk, B. S., Henriksen, E., Norberg, A., Ternstedt, B. M., & Sandberg, J. (2015). First-line nursing home managers in Sweden and their views on leadership and palliative care. *The Open Nursing Journal*, 8, 71-78. <https://doi.org/10.2174/1874434601408010071>
- Hayes, B., Douglas, C., & Bonner, A. (2015). Work environment, job satisfaction, stress and burnout among haemodialysis nurses. *Journal of nursing management*, 23(5), 588-598. <https://doi.org/10.1111/jonm.12184>
- Jadav, P. A. (2018). Cognition among old age population in a rural area. *National Journal of Community Medicine*, 9(4), 240-244.
- Khodaveisi, M., Faal Araghi Nejad, A., Omidi, A., Esmaili Vardanjani, A., & Tapak, L. (2018). Comparing the structural standards of nursing homes in markazi province, Iran with international standards. *Salmand: Iranian Journal of Ageing*, 13(3), 362-371.
- Martinez-Ezquerro, J. D., Rodriguez-Castaneda, A., Ortiz-Ramirez, M., Sanchez-Garcia, S., Rosas-Vargas, H., Sanchez-Arenas, R., & Garcia-de la Torre, P. (2019). Oxidative stress, telomere length, and frailty in an old age population. *bioRxiv*, 71, 414680.
- MClinPharm, C. H. K, Mak, V., & Huey Lee, S. W. (2019). Health outcomes of deprescribing interventions among older residents in nursing homes: A systematic review and meta-analysis. *Journal of the American Medical Directors Association*, 20(3), 362-372. <https://doi.org/10.1016/j.jamda.2018.10.026>

- Mueller, C., Arling, G., Kane, R., Bershadsky, J., Holland, D., & Joy, A. (2006). Nursing home staffing standards: Their relationship to nurse staffing levels. *Gerontologist*, 46(1), 74-80.
- Orellana, K., Manthorpe, J., & Moriarty, J. (2017). What do we know about care home managers? Findings of a scoping review. *Health & Social Care in the Community*, 25(2), 366-377. <https://doi.org/10.1111/hsc.12313>
- Recio-Saucedo, A., Dall'Ora, C., Maruotti, A., Ball, J., Briggs, J., Meredith, P., Redfern, O. C., Kovacs, C., Prytherch, D., Smith, G. B., & Griffiths, P. (2018). What impact does nursing care left undone have on patient outcomes? Review of the literature. *Journal of Clinical Nursing*, 27(11-12), 2248-2259. <https://doi.org/10.1111/jocn.14058>
- Reilev, M., Lundby, C., Jensen, J., Larsen, S. P., Hoffmann, H., & Pottegård, A. (2020). Morbidity and mortality among older people admitted to nursing home. *Age and ageing*, 49(1), 67-73. <https://doi.org/10.1093/ageing/afz136>
- Reynolds, K. S., Hanson, L. C., DeVellis, R. F., Henderson, M., & Steinhauer, K. E. (2008). Disparities in pain management between cognitively intact and cognitively impaired nursing home residents. *Journal of Pain and Symptom Management*, 35(4), 388-396. <https://doi.org/10.1016/j.jpainsymman.2008.01.001>
- Sánchez, A. D., Del Río, M. D. L. C., & García, J. Á. (2017). Bibliometric analysis of publications on wine tourism in the databases Scopus and WoS. *European Research on Management and Business Economics*, 23(1), 8-15.
- Sanford, A. M., Orrell, M., Tolson, D., Abbatecola, A. M., Arai, H., Bauer, J. M., Cruz-Jentoft, A. J., Dong, B., Ga, H., Goel, A., Hajjar, R., Holmerova, I., Katz, P. R., Koopmans, R. T., Rolland, Y., Visvanathan, R., Woo, J., Morley, J. E., & Vellas, B. (2015). An international definition for "nursing home". *Journal of the American Medical Directors Association*, 16(3), 181-184. <https://doi.org/10.1016/j.jamda.2014.12.013>
- Simon, M., Tackenberg, P., Nienhaus, A., Estryng-Behar, M., Conway, P. M., & Hasselhorn, H. M. (2008). Back or neck-pain-related disability of nursing staff in hospitals, nursing homes and home care in seven countries--results from the European NEXT-Study. *International journal of nursing studies*, 45(1), 24-34. <https://doi.org/10.1016/j.ijnurstu.2006.11.003>
- Smets, T., Pivodic, L., Piers, R., Pasman, H. R. W., Engels, Y., Szczerbińska, K., Kylänen, M., Gambassi, G., Payne, S., Deliens, L., & Van den Block, L. (2018). The palliative care knowledge of nursing home staff: The EU FP7 PACE cross-sectional survey in 322 nursing homes in six European countries. *Palliative Medicine*, 32(9), 1487-1497. <https://doi.org/10.1177/0269216318785295>
- Stein, J., Liegert, P., Dorow, M., König, H., & Riedel-Heller, S.G. (2019). Unmet health care needs in old age and their association with depression – results of a population-representative survey. *Journal of Affective Disorders*, 245, 998-1006.
- Strandås, M., Wackerhausen, S., & Bondas, T. (2019). The nurse-patient relationship in the new public management era, in public home care: A focused ethnography. *Journal of advanced nursing*, 75(2), 400-411. <https://doi.org/10.1111/jan.13850>
- Weitzel, E. C., Löbner, M., Röhr, S., Pabst, A., Reininghaus, U., & Riedel-Heller, S. G. (2021). Prevalence of High Resilience in Old Age and Association with Perceived Threat of COVID-19-Results from a Representative Survey. *International Journal of Environmental Research and Public Health*, 18(13), 7173.

- White, E. M., Aiken, L. H., Sloane, D. M., & McHugh, M. D. (2020). Nursing home work environment, care quality, registered nurse burnout and job dissatisfaction. *Geriatric nursing*, 41(2), 158–164.
- World Health Organization. (2022). Ageing and health. <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>