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Scientific Nursing Production about Alzheimer's Disease: A Bibliometric Study

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aims: to analyze and map the international scientific production of Nursing on Alzheimer's Disease, in the historical series from January 2016 to November 2021.
Methodology: This is a study of a basic nature, with a mixed approach and under the light of procedures methodological, configures itself as research of the Bibliometric type. Data collection took place in July 2021 through institutional online access to the CAPES Journal Portal, in the Scopus (Elsevier) database, using the combination of the following MESHs: "Alzheimer's disease", "Elderly", "Very Old" and “Nursing”, all mediated by the Boolean operators “AND” and/or “OR”. The final sampling resulted in 189 publications.
Results: n=189 publications were identified, distributed in n=66 journals, divided into 30 countries. It was evidenced that the year 2016 has the highest number of publications with n=44 (23.28%), followed by the year 2017 with n=42 (22.22%) articles and 2018 with n=38 (20.11) %) articles, these being the years with the highest number of publications. From the analysis of the included studies, it was observed that the publications that made up this Bibliometric review addressed 4 large distinct thematic groups: 1) Difficulties encountered by family caregivers with elderly people with Alzheimer's disease; 2) Nursing in Home Care for the Elderly with Alzheimer's Disease in Palliative Care; 3) Behaviors Observed in Elderly People with Severe Dementia and 4) Quality of Life in Elderly People with Cognitive Disabilities.
Conclusion: Despite the few publications in the database, it is observed that the publications are at a high level of quality when we look at the evaluation metrics of the selected studies. It can be seen that the main research centers on the subject are in countries such as France, Japan, the United Kingdom and the Netherlands. Furthermore, the study demonstrated the various gaps that need to be addressed and deepened on the subject that require scientific investigation.

Keywords: Alzheimer´s disease; bibliometrics; elderly; nursing.

1. INTRODUCTION

Alzheimer's disease (AD) is characterized by a degenerative process that affects multiple cortical functions, including memory, thinking, understanding and language, with impaired cognitive abilities commonly accompanied by loss of emotional control, social behavior and motivation. Its neuropathology involves neuritic plaques and neurofibrillary tangles, characterized by extracellular changes with accumulation of beta-amyloid protein, and its initial symptoms include memory disorders, apathy and depression [1,2].

AD is the most common cause of dementia, accounting for 70% of all cases worldwide. According to the World Health Organization (WHO), it is estimated that there are 35.6 million people with Alzheimer's Disease in the world, with the number likely to double by the year 2030 and triple by 2050. In Brazil, the possibility is that there are around 1.2 million people with AD, which could be a higher number, considering that the majority of people with the disease have not yet received the medical diagnosis and necessary treatment [3,4].

As it is an age-related disease, the impact of AD tends to increase with population aging, causing changes in quality of life, social, family and income. From the age of 65, its prevalence doubles every 5 years, between 60 and 64 years of age it has a prevalence of 0.7%, which increases to 5.6% between the ages of 70 and 79, reaching 38.6% in individuals over 90 years old [5].

As the disease progresses, the individual begins to disregard family members, presents an abrupt reduction in their cognitive functions, requiring constant and increasingly complex care, where systematized actions are essential, prioritizing how they relate to daily activities and prevention of disabilities and complications, always together with family members. To achieve this, the nursing professional must be able to join a multidisciplinary team and contribute to care planning, based on health education, to be able

to provide support in intra- and extra-home care [6,7].

The nursing professional participates in the process of adapting care to the elderly's gradual dependence, always encouraging self-care and maintaining self-esteem in the elderly's relationship with their family. Furthermore, the focus on care for family caregivers is highlighted, due to the constant overload of physical and emotional work, which can result in harm to their health and interference with the quality of care [8].

From this perspective, the relevance of the nursing professional as a member of the professionals who provide assistance to people with AD is observed, in addition to providing guidance to caregivers and family members. Despite this relevance, few studies address the role of nursing in caring for patients with AD. In view of this, there was a need to investigate the gaps in the international literature regarding the proposed theme, given that the theme is extremely relevant for better health care for people with Alzheimer's Disease. Therefore, this study aims to analyze and map the international nursing scientific production on Alzheimer's Disease, in the historical series from January 2016 to November 2021.

2. METHODOLOGY

This is a study of a basic nature, with a mixed approach (qualitative and quantitative) and from the point of view of the objectives it is considered exploratory and descriptive and in the light of the methodological procedures, it is configured as a Bibliometric type of research. Bibliometric studies aim to analyze scientific productions on a specific topic and involve a huge range and different ways of approaching the main characteristics and information relevant to the researched subject [9]. The study can also be considered Scientometrics, as it only addressed articles of a scientific nature.

This type of study is anchored in three basic Laws: Bradford's Law (which deals with the journals that publish the most on a given topic); Lotka's Law (which addresses the authors who produce the most in a given area) and Zipf's Law (which addresses the frequency that a word appears within a given text) [10].

The guiding question of this study was prepared according to the PICo strategy (P: Patient, I: Intervention, Co: Context) “how the international scientific nursing production on Alzheimer's Disease is presented between the years 2016 to November 2021?

Data collection took place in July 2021 through online institutional access on the CAPES Periodicals Portal, in the Scopus (Elsevier) database. Scopus is considered the largest database of citations and abstracts of academic literature, covering scientific journals, books and conference documents [11]. To conduct the search for productions relevant to the proposed theme, a combination of the following MESHs (Medical Subject Headings) was used: “Alzheimer's disease”, “Elderly”, “Very Old” and “Nursing”, all mediated by the Boolean operators “AND” and/or “OR”.

Data were extracted from the following variables: a) Citation information (Author; ID of author(s); Document title; Year; EID; Source Title; Volume, Pages; Citation count; Source and type of document; Publication Stage; DOI and Open Access); b) Bibliographic Information (Affiliations; Serial identifiers (e.g. ISSN); PubMed ID; Publisher; Language of the original document; c) abstracts; author keywords and indexed keywords; d) references of selected studies.

After the publication selection stage, the following inclusion criteria were then established: full text available in the database, original and review articles (integrative, bibliometric, scope and systematic) available in full in Portuguese, English and Spanish, articles published between 2016 and November 2021 that addressed the topic in question in a manner relevant to the proposed object of study. The following exclusion criteria were used: unavailable or restricted-access texts, theses, dissertations, letters to the editor or works that did not deal with the subject satisfactorily.

After defining the pre-established criteria, the search began in the aforementioned database, which resulted in 2,051 publications. After this moment, the title and abstract were previously read. However, after applying the filters, the final sampling resulted in 189 publications.

After completing the entire selection process of included studies, the data set was saved in the cloud (online drive), in a single file in CSV Excel format, where it was later exported to the VOSviewer® software (version 1.6.6) . It is worth highlighting that VOSviewer® is a free tool, based on the JAVA language that creates co-

citation networks based on the analysis of documents and articles from a database such as Web of Science, PubMed and Scopus [11].

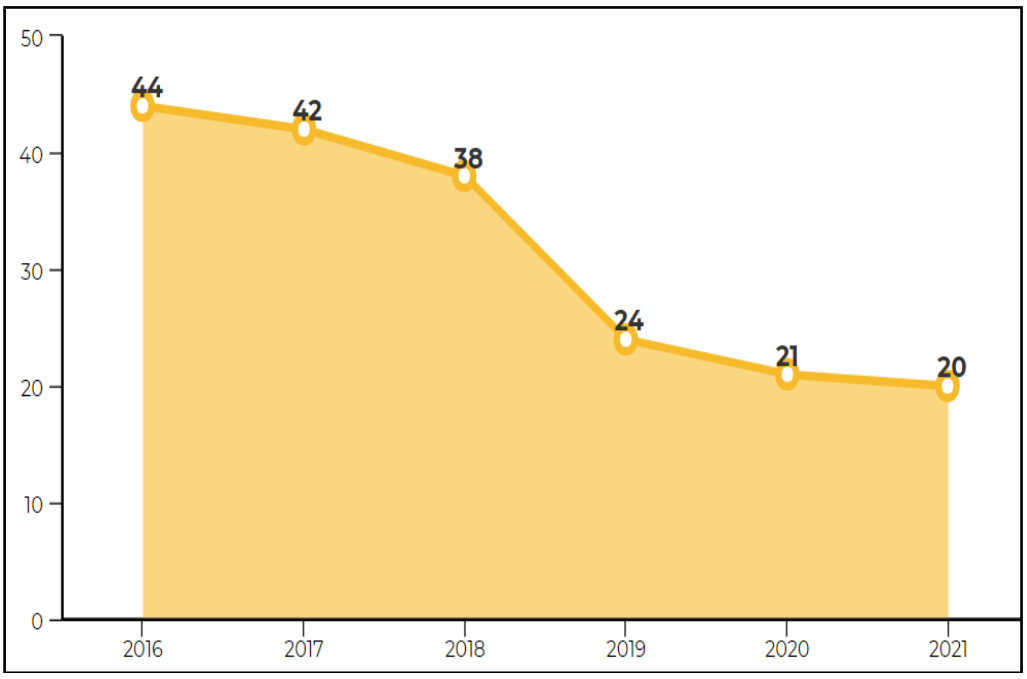
Bibliometric mappings of this type, with a quantitative approach, allow the visualization of various aspects of scientific publications, carried out in the form of different networks. Furthermore, Microsoft Excel® (2013) was also used to perform the descriptive statistics of the results. As this is a study that uses secondary data and is freely available in a data repository, there was no need to submit it to the Research Ethics Committee.

3. RESULTS

n=189 publications were identified, distributed in n=66 journals, divided into 30 countries. It was evidenced that the year 2016 has the largest number of publications with n=44 (23.28%), followed by the year 2017 with n=42 (22.22%) articles and 2018 with n=38 (20.11 %) articles, these being the years with the highest number of publications. For better observation, the data is displayed in the following graph.

Regarding co-authorship by countries of publications, we observed the formation of 5 clusters with n=1 publication and at least n=2 citations, thus forming a network of co-citations by countries composed of n=28 countries. Of this total, we observe on the map that the country with the highest number of co-authors is the USA, composed of n=67 (35.45%) publications, followed by France with n=17 (8.99%), Japan with n =15 (7.94%), United Kingdom with n=14 (7.41%), Netherlands with n=13 (6.88%), Canada with n=10 (5.29%), Brazil with n= 8 (4.23%), China with n=8 (4.23%), Germany n=8 (4.23%), Spain with n=7 (3.70%) publications and other countries compete with n=22 (11.64%) of publications. For better visualization, in Fig. 1 is the distribution of the co-authorship map by countries.

With regard to Lotka's Law, it is observed that the first 8 authors who publish the most on the subject, n=7 are from the Netherlands. The author Smalbrudgge, M has n=5 (2.64%) publications, being the researcher who published the most on the topic in the time frame. Regarding the H Index, it is observed that the author Koopmans, RTCM, has the H-39 metric, thus being considered the author with the highest number of citations in the studies selected for this review. The distribution of authors by frequency, H index and country of origin are shown in the following table.



Graph 1. Distribution of national and international nursing publications from 2016 to November 2021

Source: research authors, 2023

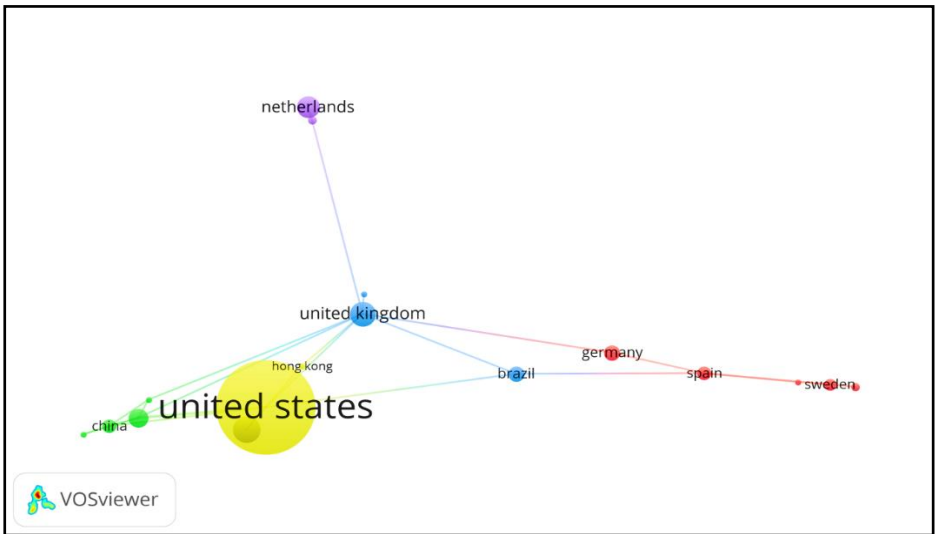


Fig. 1. Distribution of publications by co-authorship by country, with superimposed display, data operationalized in Vosviewer®
Source: research authors, 2023

Table 1. Distribution of authors with the highest number of publications on the topic with a score ≥ 3, frequency, H index and country of affiliation (Lotka's Law)

nº	Authors	*f**	Índice H	Country
1	Smalbrudgge, M.	5	H-21	Netherlands
2	Hertogh, CMPM.	3	H-30	Netherlands
3	Koopmans, RTCM.	3	H-39	Netherlands
4	Zuidema, SU.	3	H-30	Netherlands
5	Abe, S.	2	H-3	Japan
6	Adriaansen, MNM.	2	H-7	Netherlands
7	Beerens, HC.	2	H-16	Netherlands
8	Bossema, ER.	2	H-16	Netherlands

f= Frequencia*
Source: research authors, 2023.

With regard to the co-authorship network by author, it is possible to observe how researchers relate to each other according to the number of studies they publish together. Using the association strength method, it is possible to identify the strength of the links between items, which will be greater, the greater the frequency of documents produced by a set of authors. For this study, authors with at least n=1 publication and at least 2 citations were selected, which made it possible to create the network with the distribution of 5 clusters, where the size of each node (circle) allows us to identify the amount of articles by each author in the exhibition, where we can once again observe the author Smalbrudgge, M with the greatest prominence.

Regarding the keywords present in the included studies, these were analyzed in terms of the title and abstract of the publications. From the analysis using the VOSviewer® software, it was observed that the authors used a total of 4,591 terms, and of this total, taking into account the words that were repeated with a minimum score of 5, 242 words were found, where from then on, a co-occurrence map was created with 4 grouping clusters, as can best be seen in the following figure.

From the analysis of the included studies, it was observed that the publications that made up this Bibliometric review addressed 4 large distinct thematic groups: 1) Difficulties Encountered by Family Caregivers with Elderly People with Alzheimer's Disease; 2) Nursing in Home Care for the Elderly with Alzheimer's Disease in Palliative Care; 3) Behaviors Observed in Elderly People with Severe Dementia and 4) Quality of Life of Elderly People with Cognitive Disabilities.

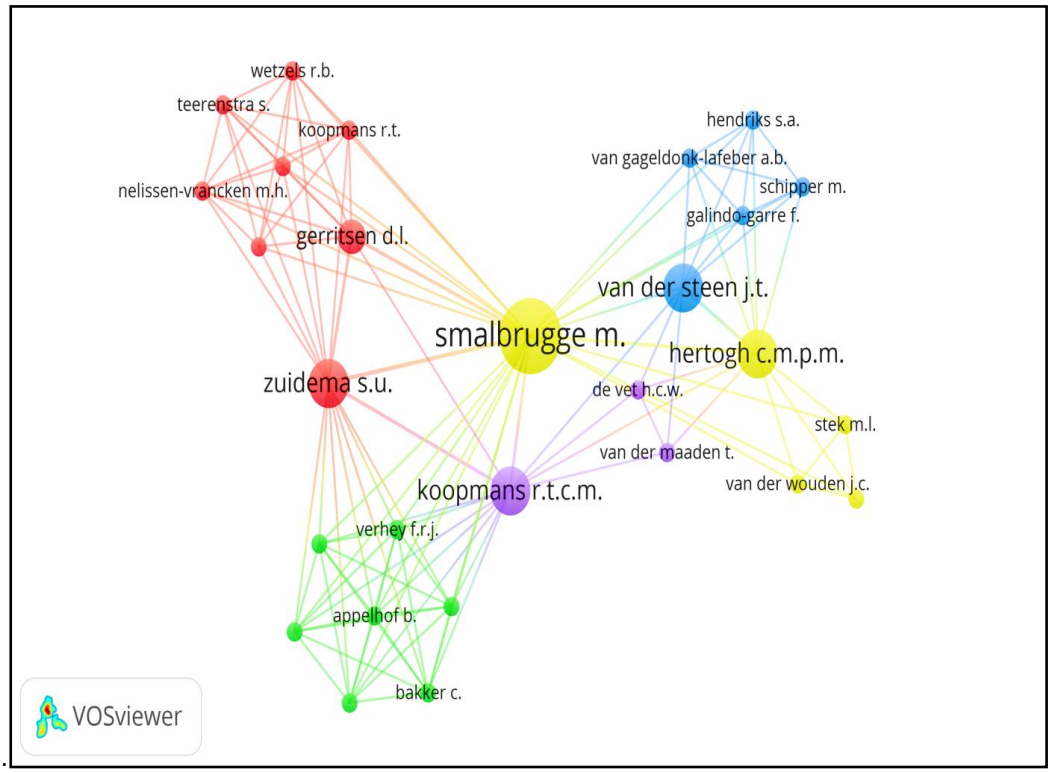


Fig. 2. Co-author network by author, with superimposed display, data operationalized in Vosviewer®

Source: research authors, 2023

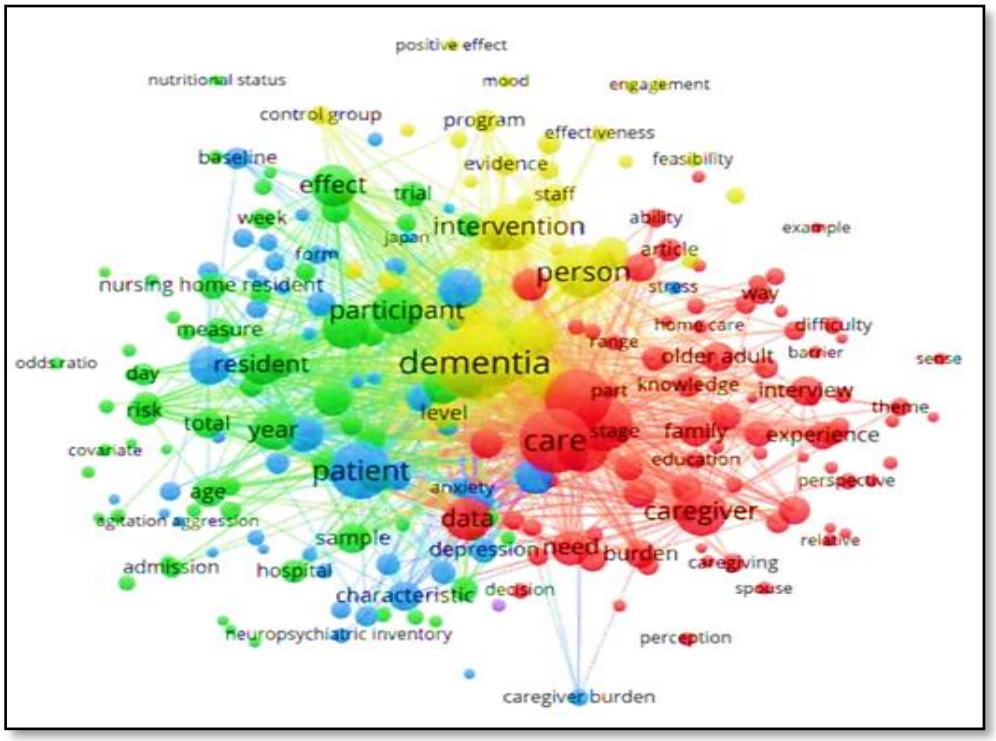


Fig. 3. Network of co-occurrence of keywords by frequency and year of publication, data operationalized in the VOSviewer® software (Zipf's Law)

Source: research authors, 2023

4. DISCUSSION

It was observed in this study that the scientific production on nursing care for patients with Alzheimer's Disease presents an insignificant amount, with a reduction in publications over the years, with the highest number of publications in 2016 and the lowest number of publications in the year 2021.

When it comes to the co-authorship network by country, it was observed that the United States (yellow cluster) presented the highest production of scientific articles on the topic, showing a close relationship with co-authors from France, Japan, the United Kingdom and the Netherlands. According to Ferreira and Silva (2019), in network visualization, each item is represented by circles or labels and the size of each circle is determined by the number of citations made. Therefore, the greater the number of citations, the larger the circle, just as the closer two clusters are to each other, the stronger their relationships [9].

In relation to the 8 authors who published the most on the topic in Scopus, it was observed that 6 presented the H index with a minimum score ≥ 16, demonstrating the high rate of citations in their publications. According to Thomaz, Assad and Moreira (2011), a researcher's H index is defined as the number of articles published by the researcher, which obtain citations greater than or equal to this number [12].

Regarding the network map created from the co-occurrence of keywords, the term “Dementia” stood out as the central theme of the relationships established. Therefore, it is possible to characterize in the literature the terms and expressions most used in abstracts, keywords and titles of the network's publications. According to Palludeto and Felipini (2019), by identifying and grouping the expressions that occur most in the literature, it is possible to complement the groups already observed, in addition to obtaining an approximation of the content of each grouping in terms of object of analysis [13].

Regarding the thematic groups, it was observed that the 4 axes were formed from the selected studies, generally addressing the role of Nursing in assisting patients with Alzheimer's Disease. Due to their highly debilitating condition, most elderly people with AD receive care at home. For Aguiar et al (2019), nursing actions in the care of this patient must also extend to caregivers and family members, and it is important that the nurse develops a comprehensive care plan, which aims at the longitudinality of actions at home, with multidisciplinary action. and focusing on the main demands presented [14].

The home visit allows the nurse close access to the experiences of the sick person and their family members, including: environmental and physical conditions (for example, it allows them to identify barriers in the physical structure of the home); socioeconomic, spiritual and cultural factors; available resources, hygiene and safety conditions; family dynamics [15].

According to Souza et al (2020), this professional has an important role to play in the care of elderly people in a process of physiological and functional changes, as well as in guiding family members regarding the evolution and progression of the disease, in addition to carrying out training of the nursing team with topics related to the care of elderly people with Alzheimer's [16].

Nursing care is essential to the health of elderly people with AD, as it uses scientific methods and seeks to reduce overload, ensuring effective and qualified care in health and illness. Thus, it must aggregate knowledge and promote the exchange of knowledge and experiences, the object of its actions and interventions, in order to collaborate with the patient and the family [17].

For Farfan et al (2017), theoretical knowledge is valuable when associated with good practice, with this clientele. As part of the multidisciplinary health team, the nurse centralizes the actions of caregivers, operationalizes care and directs care at home, as as the disease progresses the person becomes more dependent on caregivers [4].

Home care ends up placing a great demand on caregivers, resulting in a real challenge that can have considerable long-term psychological and physical consequences for the caregiver. The presence of overload in the care of elderly people with AD is observed, due to the growing dependence of these patients, as well as the lack of discernment regarding the need for absolute, maximum, minimum assistance or just monitoring during the execution of care [18].

This study corroborates Nascimento and Figueiredo (2019), who found that AD causes changes in the lives of caregivers that modify the

conditions of the house in which they live, their daily routine, personal and professional life. In this way, they emphasize the overload and adversities of care management, allowing these individuals to give up on themselves due to patient care [19].

Diniz et al (2018) states that, commonly, the feeling of exhaustion or exhaustion of caregivers in conjunction with the symptoms characterized in the person who is affected by excessive work is a consequence of the donation and commitment to the role of caring, where caregivers ignore the own needs, which constitutes a psychosocial disorder. For Mendes et al (2019), the impact of chronic stress on elderly caregivers can be reflected in physical and psychological problems that affect the type of care that dependent elderly people receive [20,21].

The study by Mattos and Kovacs (2020) found that hygiene and comfort, the need for constant action and lack of knowledge about the disease were the main aspects revealed by caregivers. Corroborating the aforementioned authors, Bierhals et al (2017), identified through caregivers' reports the need for more than one person to help care for the elderly, access to instruments to facilitate treatment, lack of understanding of the tasks to be performed, lack of caregiver's health. comprehensive care and damage to social life, acceptance of the elderly's dependence/change of role [22].

The difficulties presented by the caregiver are accentuated as the AD stage worsens, reaching the stage of the elderly with severe dementia in which they present total dependence. At this stage, the elderly person presents a total loss of cognitive abilities, mutism, polylalia (repetition), echolalia, fecal and urinary incontinence, in addition to rigid, flexed limbs, and myoclonus [23].

Due to the aforementioned clinical conditions, comprehensive care in a permanent bed is necessary, given the loss of psychomotor activity. At this time, nursing team professionals should guide caregivers to provide basic care, prioritizing comfort and affection. It is important to maintain family support due to the experience of progressive losses and imminent death [24].

Changes in cognitive functions, constant functional impairment and total dependence on the caregiver tend to result in changes in the quality of life of this elderly person [25]. According to Scherrer Júnior et al (2018), an individual's quality of life results from the association of several factors, from biological-functional to sociocultural factors. Therefore, the combination of the probability of illness and disabilities, changes in the maintenance of physical and cognitive functions have a negative impact on this aspect [26].

It is observed that elderly people with cognitive deficits suffer significant changes in their quality of life, due to the set of signs and symptoms they tend to present, such as: intellectual decline, memory, language and other functions such as: the ability to identify, recognize objects, plan, sequence, organize and execute tasks, changes in behavior and impairment in psychosocial relationships [27].

Progressive cognitive decline also has extensive social consequences, which involve the elderly person affected, as well as their family. The gradual loss of functional capacity implies the loss of independence and autonomy, generating the loss of the individual's ability to take care of themselves, which even involves the loss of the condition of being responsible for their own actions [25].

A study carried out by Farias et al (2017), when verifying the relationship between cognition and QoL, found that cognitive changes are mistaken as a natural part of aging, leading to late diagnosis and treatment. The interference of cognitive decline in the quality of life of the elderly reflects negatively, with difficulties in maintaining attention, recent memory and making calculations, leading to worsening of the clinical condition and exhaustion of both the patient and their caregiver [28].

Therefore, it is up to nursing to carry out strategies that continuously evaluate and detect possible changes and signs indicating a worsening of the condition, providing guidance on behavioral and psychological symptoms in the elderly and caregivers, thus providing a better quality of life for them [29-31].

5. CONCLUSION

After carrying out this review, it was found that the publications that cover the topic in the proposed time frame are limited and have shown a reduction in quantity over the years. Despite few publications in the database, it is observed

that the publications are at a high level of quality when we observe the evaluation metrics of the selected studies.

We can show that the main research centers on the subject are in countries such as France, Japan, the United Kingdom and the Netherlands. Furthermore, the study demonstrated the various gaps that need to be answered and deepened on the topic and that require scientific investigation. It is also worth highlighting the need for a greater number of publications on the topic and the role of nurses in caring for elderly people with Alzheimer's Disease, given its impact on quality of life and continuous specialized care.

As contributions, this study demonstrates the need for more investment in research to meet existing demands, discover new care strategies for elderly people with Alzheimer's Disease in order to understand and remedy existing obstacles in the provision of care.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Alzheimer’s Disease Internacional (ADI). Dementia Statistics.Dementia statistics; 2021. Available:https://www.alzint.org/about/dementia-facts-figures/dementia-statistics/
2. Caetano LAO, Silva FS, Silveira CAB. Alzheimer, Sintomas E Grupos: Uma Revisão Integrativa. Vínculo-Revista do NESME. 2017;14(2):84-93.
3. World Health Organization. Dementia; 2021. Available:https://www.who.int/news-room/fact-sheets/detail/dementia
4. Farfan AEDO, Farias GB, Rohrs RMS, Magalhães MSSP, Silva DFD, & Schulz, RDS. Nursing care for people with Alzheimer's dementia. CuidArte, Enferm. 2017;138-145.
5. Dadalto EV, Cavalcante FG. The place of the family caregiver for elderly people with Alzheimer's disease: a literature review in Brazil and the United States. Science & Public Health. 2021;26:147-157.
6. Fernandes MA, Sousa JWOG, Sousa WSD, Gomes LFDD, Almeida CAPL, Damasceno CKCS, Ibiapina ARDS. Care provided to elderly people with Alzheimer's in long-term care institutions. Rev. Enferm. UFPE online. 2018;12(5):1346-1354.
7. Urbano ACDM, Gomes ACMDS, Nascimento WSD, Trigueiro DRSG, Matos SDDO., & Lucena ALRD. Care for elderly people with Alzheimer's disease: descriptive-exploratory study. Online braz. j. nurs.(Online). 2020;19(4).
8. Mendes CFM, Santos, ALS. Care in Alzheimer's disease: the social representations of family caregivers. Health and Society. 2016;25(1):121-132.
9. Ferreira, JB; Silva, LMF. The use of bibliometrics and sociometrics as a differential in review research. Brazilian Journal of Librarianship and Documentation. 2019;15(2).
10. Rangel LS, Ferreira F; Jesus ARBS. COVID-19: A Bibliometric and Social Network Study of Brazilian Scientific Production Published on the Web Of Science from March to August 2020. Unesc [Internet]. 2020;4(2).
11. Santos A, Mangini ER. Urdan AT. Rossini FHB. Bibliometric Assessment in Service Innovation. Perspectives on Management & Knowledge. 2017;7(1):212-231.
12. Thomaz PG, Assad RS, Moreira LFP. Using the Impact Factor and H Index to Evaluate Researchers and Publications. Brazilian Cardiology Archives. 2011;96 (2):90-93.
13. Palludeto AWA, Feliponi AR. Overview of the literature on financialization (1992-2017): a Bibliometric approach. Economy and Society. 2019:28(2):(66)313-337.
14. Aguiar VFFD, Carvalho, DDNRD, Sardinha DM, Martins JDN, Costa RE ARD, Cunha CS, Peixoto, IVP. Care Strategies for the Elderly with Alzheimer's Disease: Integrative Literature Review. International Neuropsychiatric Disease Journal. 2019;13 (3-4):1-10.
15. Fratezi FR, Gutierez BAO. Family caregiver of the elderly in palliative care: the process of dying at home. Collective health science. 2018;16(7):3241-3248.
16. Souza EC, Silva TC, Silva ML, Nascimento IMG, Alencar MT, Feitosa ADNA. Difficulties Found by Elderly Caregivers with Alzheimer. Brazilian Journal of Production Engineering, 2020;6(6): 216-224.
17. Silva SPZ, Bernardo AV, Lô CLN, Campeiro GVT, Santos LR. Nursing care for patients with Alzheimer's: an integrative

review. Nursing (São Paulo). 2020;23 (271):4991-4998.
18. Souza ID, Pereira JDA, Silva EM. Between the State, society and the family: the care of women caregivers. Brazilian Nursing Magazine. 2018;71:2720-2727.
19. Nascimento HG, Figueiredo AEB. Elderly People with Dementia in Primary Care: Integrative Literature Review, Estud. interdisciplinary. age. 2018;23(2):51-71.
20. Diniz MAA, Melo BRDS, Neri KH, Casemiro FG, Figueiredo LC, Gaioli CCLDO, Gratão ACM. Comparative study between formal and informal caregivers of the elderly. Ciência & Saúde Coletiva. 2018;23:3789-3798.
21. Mendes PN, Figueiredo MDLF, Santos AMRD, Fernandes MA, & Fonseca RSB. Physical, emotional and social burden on informal caregivers of the elderly. Acta Paulista de Enfermagem, 2019;32:87-94.
22. Mattos EBT; Kovacs MJ. Alzheimer's disease: the unique experience of family caregivers. Psicologia USP. 2020:(31).
23. Bierhals CCBK, Santos NOD, Fengler FL, Raubustt KD, Forbes DA, Paskulin LMG Needs of family caregivers in home care for the elderly. Latin American Journal of Nursing. 2017;25.
24. Nascimento HGD, Figueiredo AEB. Dementia, family caregivers and health services: caring for oneself and others. Ciência & Saúde Coletiva. 2018;(24):1381-1392.
25. Scherrer Júnior G, Okun MFP, Passos KG, Ernandes RDC, Alonso AC, Belasco AGS. Quality of life of elderly people living in private institutions. Rev. infirm. UFPE online. 2018;2113-2119.
26. Guimarães CHS, Malena LMA, Limborço-Filho M, Marins FR. Dementia and Alzheimer's disease in the aging process: pathophysiology and therapeutic approach. Health Magazine in Focus. 2018;(10):942-955.
27. Assis CRC, Camacho ACLF. Quality of Life of Elderly People with Alzheimer's Disease: An Integrative Review. Rev enferm UFPE online. 2016;10 (Supl.4): 3631-45.
28. Pereira XDBF, Araújo FLDC, Leite TIDA, Araújo FADC, Bonfada D, Lucena EEDS. Prevalence and factors associated with cognitive impairment in elderly people in the community. Brazilian Journal of Geriatrics and Gerontologia. 2020;23(2).
29. Andrade FLJPD, Lima JMRD, Fidelis KDNM, Jerez-Roig J, Lima KCD. Cognitive disability and associated factors in institutionalized elderly people in Natal, RN, Brazil. Brazilian Journal of Geriatrics and Gerontology. 2017;20:186-196.
30. Farias, RA et al. Relationship Between the Quality of Life and Cognitive Status of Elderly People in A Brazilian Municipality. Proceedings of the National Congress on Human Aging; 2017.
31. Lucena SLF, Farias FS, Cordeiro LM, Coutinho DTR, Silva LDF, Freitas MC. Nursing care for elderly people with Frailty Syndrome based on the Comfort Theory. Nursing in Focus. 2020;11(5):20-26.

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