Alzheimer’s Disease: The Knowledge of Nurses Regarding the Clinical Aspects of the Disease

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Abstract: Objective: To quantify and analyze the scientific production on the knowledge of nurses regarding the etiological, clinical aspects of Alzheimer’s disease (AD) and its inherent complications. Methods: this is an integrative review of publications published between 2016 and 2017. The articles analyzed were found by consulting the databases: Scientific Electronic Library Online and Virtual Health Library. We collected 428 articles with the descriptors DA, Nursing, and Diagnosis, 15 of which were selected. Results: predominance of studies addressing the diagnosis but without making reference to clinical aspects of the disease was observed, reinforcing the initial concerns of this survey. Research about this subject does not emphasize all clinical aspects, and the analysis of the knowledge for interventions by nurses is unfeasible. Conclusion: It is essential stay up-to-date to be able to adopt a professional conduct on the subject, directing the care so as to reduce the impacts of the disease.

Keywords: Alzheimer's disease; Nursing; Diagnosis

Resumo: Objetivo: quantificar e analisar a produção científica sobre o conhecimento dos enfermeiros a respeito dos aspectos etiológicos, clínicos e complicações inerentes à DA. Métodos: trata-se de uma revisão integrativa das publicações que abordam a temática em questão, realizada entre 2016 a 2017, nessa foram analisados artigos encontrados em consulta às bases de dados: Scientific Eletronic Library Online e Biblioteca Virtual em Saúde. Foram coletados 428 artigos com os descritores: DA, Enfermagem e Diagnostico, sendo 15 selecionados. Resultados: percebeu-se a predominância de estudos que abordavam o diagnóstico e os sem referência aos aspectos clínicos. Logo a pesquisa sobre esta temática não enfatiza todos os aspectos clínicos, inviabilizando a análise do conhecimento para intervenção, por parte de enfermeiros. Conclusão: torna-se indispensável que o enfermeiro se mantenha atualizado viabilizando uma condução do profissional sobre a temática, direcionando o cuidado em reduzir os impactos da doença.

Palavras-Chaves: Doença de Alzheimer; Enfermagem; Diagnóstico

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Introduction

The phenomenon of aging is a natural process that has gained notoriety due to the demographic transition through which developing countries are passing. This transition is related also to a drop in birth and fertility rates, decrease in mortality rate for older age groups, and consequent increase in life expectancy⁴.

The individuals in this population, the elderly, are defined according to the chronological character (individuals over 60 years of age) and face a situation of progressive change of physiological and mental functions². It is, therefore, essential that health services monitor this progress in order to efficiently and correctly serve this population.

Aging encompasses a set of modifications in organic and mental functions that lead to a diminished capacity to maintain the homeostatic balance and, gradually, the physiological functions of individuals. These modifications have the gradual depletion of the functional reserve as a fundamental peculiarity. This means that, an archaic organism in the normal state would be able to continue living perfectly, but when subjected to physical or emotional stress, among other factors, problems in the homeostatic balance will come up, and be consequently externalized into functional overload, ultimately resulting in pathologies for the deterioration of the endocrine, nervous and immune systems³.

Among the incidental modifications that may occur during aging, there is Alzheimer's disease (AD). This is a progressive neurodegenerative disease that brings innumerable physical and mental complications. In these cases, nursing care is fundamental for the life of the elderly and their family. When the clinical situation is established, the nursing team often has difficulties in the evaluation of patients and implementation of nursing care⁴.

AD patients present progressive dependencies in their daily activities due to the impairment of their physical, mental and social integrity. As the disease progresses, AD patients need constant care⁵.

There are marked changes in the sleep-wake cycle, particularly those of behavioral nature, including aggressiveness, irritability, memory loss, and others. These aspects insert AD in a progressive and irreversible frame. The disease may show some gross symptoms, such as stiffness, spastic hemiparesis and body deterioration⁶.
AD can affect personal, family and financial relationships and is considered a social disease. Nursing professionals play a fundamental role in the daily life of AD patients and they can collaborate to the safety and a better quality of life for these patients and their families.

This study aimed to quantify and analyze the literary production on the knowledge of nurses regarding the etiological and clinical aspects of AD and its inherent complications.

Methodology

The present study is a descriptive and exploratory research. It is an integrative review that, according to Mendes, consists in a method that provides the synthesis of knowledge and the incorporation of the applicability of results of significant studies into practice. Its purpose is to promote understanding of the disease, its pathophysiology, signs, symptoms and diagnoses.

An exploratory research was carried out in the Scientific Eletronic Library Online (Scielo) and Virtual Health Library (VHL), with the descriptors: "Alzheimer's Disease", "Nursing", and "Diagnosis". Two hundred and twenty-four articles were found in the VHL and 4 in Scielo, totaling 428. After inclusion of articles published in Portuguese that deal only with nursing diagnoses and nursing care, as described in the chart below, the sample was reduced to 15 articles.

Chart. Selection of articles in the electronic databases. Campina Grande, 2017.

- Four articles were found with the use of the following filters: articles published in Portuguese and available for download; the four articles remained. After analysis, upon application of inclusion criteria, the number of articles was reduced to 2.

- A total of 424 articles were found with the use of the following filters: articles published in Portuguese and available for download; the number of articles was reduced to 18. After analysis, upon application of inclusion criteria, the number of articles was reduced to 13.

- Upon application of the pre-established inclusion and exclusion criteria, a total of 15 articles were analyzed.
After selection, the publications were read in their entirety and analyzed as to the knowledge of nurses about etiological and clinical aspects of AD and its inherent complications. The present study did not involve an approach or intervention in human beings, so it did not have risks or financial burden during its execution.

Results

To quantify and analyze the literary production about the knowledge of nurses on the etiological and clinical aspects of AD and its inherent complications.

Among the analyzed articles, there was a predominance of studies on clinical aspects with emphasis on diagnosis and etiology of the disease, and neglecting the predictions and complications of AD. The clinical aspects of the analyzed productions are shown in Table 1.

Table 1. Distribution of characteristics: clinical aspects and journals, according to the articles analyzed in the study. Campina Grande, PB, 2017.

| CHARACTERISTICS     | N°  | %    |
|--------------------|-----|------|
| Clinical aspect    |     |      |
| Diagnosis          | 6   | 40.00% |
| Etiology           | 4   | 26.66% |
| Prediction         | 1   | 6.66%  |
| No clinical aspect | 4   | 26.66% |
| TOTAL              | 15  | 100%  |

After carefully reading the 15 selected articles, we noticed the predominance of studies that addressed the diagnosis of AD, as well as articles without reference to the clinical aspects, reinforcing the concern that preceded this survey. It is possible to affirm that the research on this topic has not emphasized all clinical aspects, making the analysis of the knowledge for intervention that nurses have unfeasible.
The small sample of manuscripts addressing the three clinical aspects indicate the deficient autonomy of nurses in face of this health problem, since these professionals work beyond the care, but also planning health care measures from a holistic perspective and drawing nursing diagnoses to prevent injuries.

Among the nursing professionals, nurses are responsible for anamnesis and detailed physical examination and should be alert to signs that may indicate a cognitive deficit. After confirmation of the diagnosis, they can structure the actions and the care to be applied.

Diagnosis of Alzheimer's disease is based on the use of data that indicate the presence of deterioration of the intellectual or functional capacity of individuals. This information is obtained through direct evaluation of patients or based on the anamnesis with the caregiver. These data serve as a basis for a reliable diagnosis³.

One of the analyzed studies states that among the nursing diagnoses for AD patients, anxiety, self-care deficit, insomnia, risk of trauma, and tension from the part of the caregiver stand out, being the most frequent diagnosed characteristics⁹.

Sá and collaborators¹⁰ highlight the importance of continuing research on this subject, in view of the progression of AD, with the goal to contribute to a better qualification of the nursing professionals who work towards the systematization of nursing care.

Table 2 shows the bibliometric characteristics of the analyzed productions, which have been published in good strata. Most articles (39.9%) were published in Qualis A2 journals, with 6 articles, followed by those published in Qualis B2 journals, representing 26.5%, corresponding to 4 articles, and then the Qualis B1 and B3 journals, representing 13.3% corresponding to two articles each, and Qualis B4 (6.6%) with one article.

According to the qualifications of the publications, it is possible to say that the theme has attracted the interest of relevant journals, reinforcing the need to give greater visibility to this theme.
TABLE 2. Classification of journals where the articles analyzed in the present study were published, according to the QUALIS System. Campina Grande-PB 2017.

| Journal                                | Nº of articles | Qualis | %    |
|----------------------------------------|----------------|--------|------|
| Acta Paul.Enferm³                      | 1              | A2     | 6.66%|
| Arq Neuropsiquiatr³                    | 1              | B1     | 6.66%|
| Rev.Gaúcha.Enferm¹²                    | 1              | B1     | 6.66%|
| Aging Interdisciplinary Study⁹         | 1              | B3     | 6.66%|
| Rev.Bras.Enferm¹²                      | 2              | A2     | 13.3%|
| Rev.pesqui.Cuid.Fundam¹⁰,¹⁴            | 2              | B2     | 13.3%|
|                                          | 1              | B4     | 6.66%|
| Electronic Pharmacy Magazine⁴          | 3              | A2     | 20.0%|
| Texto Contexto Enferm⁸,¹³,¹⁵           |                |        |      |
| Rev.Kairós⁶                            | 1              |        |      |
| Ciências da Saúde⁷                     |                | B3     | 6.66%|
|                                          | 1              | B2     | 6.66%|
| R.Enferm.Cent.O.Min¹⁶                  | 1              | B2     | 6.66%|
| TOTAL:                                 | 15             |        | 100% |

According to Guccione¹¹, Alzheimer's disease contributed to 60% of the cases of dementia. As the disease progresses, the cognitive loss increases, making individuals become dependent. The articles that addressed this issue as their main theme affirm that besides psychomotor changes, an emotional exhaustion of caregivers and relatives also happens.

In the study by Poltroniere, Cecchetto and Souza¹², it was identified that the nurses of the hospitalization units did not have a satisfactory knowledge about AD. The authors mention that nurses in this area are generally able to identify signs and symptoms, but they are unaware of aspects related to management.

Nursing care is addressed as the main topic in four articles of the sample³,⁷,⁹,¹⁶, where the authors emphasize the importance of nurses to these individuals. The authors highlight nurses as fundamental actors in the support for the care of AD patients, allowing a comprehensive attention in order to reduce the suffering and the wear. They also affirm that nurses have the power of bringing up a new perspective of the disease to the patients, because
despite its chronic nature, AD has treatment, and nurses have the technical-scientific knowledge to improve the quality of life, reduce the harm and avoid complications\textsuperscript{10}.

**Discussion**

Nursing can contribute and play an extremely important role in gerontology and geriatric neuropsychiatry. These professionals do this through their attributions and competences, by creating self-help groups, conducting home visits and performing nursing consultations, and using instruments that can assess the cognitive condition of individuals. It is worth mentioning that to achieve this objective, nurses must have knowledge about the clinical characteristics of the disease, so that they can effectively intervene.

Regarding the care of older people with AD, the outcomes are directly related to the involvement of these patients within the family context, as well as to the acquisition of knowledge about the disease. It is worth emphasizing that believing in the potential of the elderly, in addition to supporting them with affection, establishes a strong bond, facilitating the process of recovery of their potentialities\textsuperscript{14}.

Nurses can act by providing care to AD patients, as well as passing their knowledge related to illness to both the elderly and the caregivers, so that they can be guided on the necessary care\textsuperscript{15}.

Sales argues that Alzheimer's disease affects each individual in a peculiar way, and can present several signs and symptoms through the progressive stages of the disease, being the presence of nurses essential to the care of these individuals\textsuperscript{16}.

Another relevant fact to be mentioned is the exposure of nursing professionals to potential factors that generate stress, causing their general exhaustion. It is, therefore, necessary that caregivers receive support from the family members\textsuperscript{13}.

Luzardo, Gorini and Silva\textsuperscript{13} affirm that nursing professionals are qualified to integrate the multidisciplinary team, thus contributing to the planning of care actions, related to health education, promoting support at the time of the intra- and extra-domiciliary care.

However, it is necessary that health professionals, including nurses, always seek to obtain additional clinical knowledge related to AD so as to make accurate diagnoses and optimize the clinical planning for these patients\textsuperscript{3}. 
Conclusion

The present review is relevant for demonstrating the scarcity of publications related to the theme, integrating all clinical aspects, available in Portuguese. Researchers should be encouraged to consider this theme as an object of study, aiming to strengthen the scientific basis of the nursing care for Alzheimer's patients, comprising all clinical aspects.

As the elderly population goes through a remarkable increase in the present, and with that also diseases such as Alzheimer's disease, it is necessary to improve the medical care for this growing segment of the population. That is the reason why nurses must also keep up to date, in order to provide a better care to Alzheimer's patients, thus minimizing the devastating impacts of this terrible disease.

The analyzed articles allowed us to understand that the knowledge obtained by nursing professionals about the clinical aspects of Alzheimer's is still limited. It is, therefore, important that nurses keep always in continuous training, acquiring knowledge through new researches, professional improvement, participation or promotion of events on the subject and in the conviviality with the clients.

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