

Alzheimer's disease as a social problem

Abstract

The purpose of the research was: to review and interpret different publications referring to Alzheimer's Disease as a social problem, especially in the family environment, it is a disease that influences the quality of life not only of those who suffer from it but also of the relatives with whom they live, the method used was the Bibliographic Documentary, reaching the conclusion that it is a degenerative disease of neurological order that affects the quality of life of the patient and the relatives if it is not addressed promptly in order to control its effects, it interferes negatively in the life of the patient and the family environment, in many opportunities for its detection and treatment influences the economic aspect, since if the necessary monetary resources are not available, the patient does not receive treatment and the disease worsens.

Keywords: Alzheimer's disease, social, neurological problem, quality of life

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Introduction

Alzheimer's is a neurological disease, which degeneratively affects the body, becomes a social problem from the moment it affects the life of the human being and that of his relatives. According to Romano¹, "Alzheimer's disease is a neurological disorder that causes the death of nerve cells in the brain. Usually, Alzheimer's disease begins gradually and its first symptoms can be attributed to old age or forgetfulness." It should be noted that it brings with it a series of conditions such as cognitive impairment, forgetfulness of functions of the organism such as swallowing, grooming, recognizing family and friends, in popular slang it is a senile disease, of old age, however, there have been cases where the individual is still young.

Without a doubt it represents a social problem, in a postmodern society where everything moves very quickly, it is really difficult to take care of the elderly of the family and even more so if it is an Alzheimer's patient. Because all members of the family must work to help the economy of the home, if the elderly cannot fend for himself in his basic functions he deserves the care of another person, which translates into a great economic expense for the relatives and if they in turn do not have the necessary monetary resources, the elderly person is neglected or interned in a house-home to be offered the necessary care there, which also represents a very excessive expense, also causes a social impact on the family and society starring abandonment of the job and psychological stress on the caregiver.

The whole situation described is the daily life of many families, it is a disease that has no cure and extremely degenerative, the Bibliographic Documentary method was used, the purpose of the research was to review and interpret different publications referring to Alzheimer's Disease as a social problem specifically in the family environment as well as in terms of its characteristics in epidemiology, etiopathogenesis, pathological anatomy, clinical diagnosis, evolution and treatment, the method used was the bibliographic documentary, in the same way conclusions and references used in the research are presented.

Alzheimer's is a disease that affects a large number of the elderly population and is in many cases a social problem due to the consequences it generates for the patient and their family environment. According to Romano¹, "Alzheimer's is a progressive dementia that has memory deficit as one of its earliest and most pronounced symptoms." Epidemiologically, it is the most frequent dementia in the elderly population, representing 50 to 60% of dementias. It is

estimated that in the world there are 22 million people who suffer from it and that in three decades there will be twice as many.

According to the International Alzheimer's Association,² the disease can begin as early as age 50, has no known cure yet., according to Lichtmacher³ in the US, between 1 and 6% of people over 65 suffer from the disease. 10% of people over 70 and 20 to 40% of those over 85 have clinically identifiable amnesia, importantly noting that each individual's chance of Alzheimer's increases with age.

In relation to etiopathogenesis The etiology of the disease is unknown. Depending on the age of onset of symptoms, it is classified as: • Early-onset Alzheimer's disease, if the onset is before the age of 65. • Late-onset Alzheimer's disease, if it begins after age 65. In turn, these two forms are classified into two subtypes: • Family, if there is a family history • Sporadic, if there is no family history. (2 About 10% of cases the disease is hereditary with autosomal dominant transmission.

The documentary studies conducted by Romano referenced that according to the Agency for Health Care Policy and Research (2006) states:

That the Alzheimer's disease gene is located on the long arm of the chromosome. This fact is of great interest because for years it has been known that patients with trisomy 21 (Down syndrome) develop the disease with great frequency, and because the gene for the amyloid precursor protein (PPA) in the brain is also located on the chromosome. Point mutations of ASF have been described in several families with Alzheimer's disease. In most families with the presenile form, there is a link to the markers of the long arm of the chromosome In these the age of onset of symptoms is in the fifth decade of life, while in those with a ASF mutation. the beginning occurs in the sixth decade. The mutation in the chromosome appears to give rise to a more serious phenotype than that caused by the ASF mutation. The demonstration of point mutations in ASF and other genetic defects in the regulation of this protein reinforce the pathogenic hypothesis according to which the brain anomaly is due to the amyloid deposit that would exert its neurotoxicity by a double pathway: causing neuronal degeneration (direct toxicity) or modifying the homeostasis of neuronal calcium through the metabolism of glutamic acid (indirect toxicity).

There are risk factors that are characterized by Romano¹ as: High blood pressure for a long time, head trauma. High levels of homocysteine (a body chemical that contributes to chronic diseases such as heart disease, depression, and possibly Alzheimer's disease) Belong to the female gender; because women generally live longer

than men, they are more likely to develop this disease. As well as that there is a medical history of dementia or Down syndrome in the family

According to Behrens PMI et al.,⁴ There is a close correlation between the degree of dementia and the density of senile plaques and neurons with neurofibrillary degeneration Brain tissue shows "neurofibrillary knots is" (coiled fragments of protein within neurons that obstruct them), "neuritic plaques" (abnormal agglomerations of dead and dying nerve cells, other brain cells and protein) and "senile plaques" (areas where products of dead neurons have accumulated around proteins). Although these changes occur to some degree in all brains with age, they occur much more in the brains of people with Alzheimer's disease.

For Berciano (2006), cited by Romano¹ the disease can be divided into three stages: Initial, with a slight or mild symptomatology, the patient maintains his autonomy and only needs supervision when it comes to complex tasks. Intermediate, with symptoms of moderate severity, the patient depends on a caregiver to perform daily tasks. Terminal, advanced and terminal state of the disease, the patient is completely dependent.

The most common symptoms of the disease are mood and behavior disorders, memory loss, orientation difficulties, language problems and cognitive alterations. Memory loss goes as far as the non-recognition of relatives or the forgetfulness of normal abilities for the individual. Other symptoms are changes in behavior such as outbursts of violence.

In the final phases, the musculature and mobility deteriorate, and sphincter incontinence may occur. The neuropsychological alterations in Alzheimer's disease are: Memory: impairment in recent, remote, immediate, verbal, visual, episodic and semantic memory. Aphasia: impairment in comprehension, naming, creep and literacy functions. Apraxia: constructive type, apraxia of dressing, motor and ideational ideo apraxia. Agnosia: perceptual and spatial alteration. This neuropsychological profile is called Triple A or Triad aphasia-apraxia-agnosia. Not all symptoms occur from the beginning, but they appear as the disease progresses.

According to the literature consulted, there is no single method to diagnose anger, there is no cure, the purpose of applying a treatment is: disminuir the progress of the disease, manage behavioral problems, confusion and agitation, modify the home environment, support family members and other people who provide care. Through the research carried out it has been discovered that certain vitamins help the maintenance of cognitive functions in these patients such as vitamins B12, B6, Folic acid.

In the same way, it has proven the efficacy of anticholinesterase drugs that have an inhibitory action of cholinesterase, the enzyme responsible for breaking down acetylcholine, the neurotransmitter that is missing in Alzheimer's and that substantially affects memory and other cognitive functions. With all this, the patient's behavior in terms of apathy, initiative and functional capacity and hallucinations has been improved, improving their quality of life. The first anticholinesterase drug marketed was tacrine, which is not currently used due to its hepatotoxicity. There are also drugs available, among others are: donepezil, rivastigmine and galantamine. They have a similar efficacy profile with similar side effects: gastrointestinal disorders, anorexia and heart rhythm disorders.

According to Terrado⁵ the World Health Organization (WHO) estimates that some 47.5 million people suffer from dementia, and each year 7.7 million new cases are registered. Alzheimer's disease is

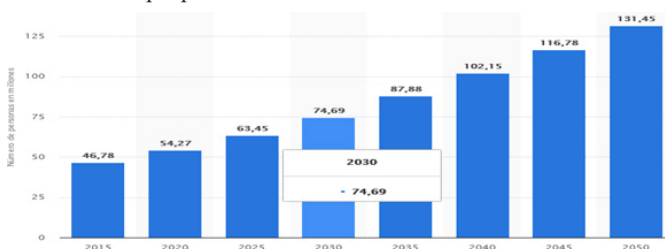
the most common cause of dementia, accounting for 60-70% of cases. Likewise, the authors point out that the WHO defines Alzheimer's disease (AD) as a "neurodegenerative disease of unknown etiology characterized by a progressive deterioration of memory and cognitive function, which represents approximately 50-75% of all cases of dementia."

In 2006, the number of patients with AD was 26.6 million in the world and predictions suggest that in 2050 the number of patients will reach 106.8 million, of which 16.51 million will be European. According to the theoretical, more recent studies have confirmed this growing trend in patients with dementia, predicting an increase of 87% in the European region in the period 2010-2050

La Alzheimer's Disease International² señala:

Dementia is a collective name for progressive degenerative brain syndromes that affect memory, thinking, personality, and emotions. Alzheimer's disease and vascular dementia are the most common types of dementia, affecting up to 90% of people with dementia, presenting symptoms such as :p memory waste, difficulty finding the right words or understanding what is said to perform tasks that were previously routine, personality and mood changes.

As it is observed the meaning of the disease and the characteristics in terms of symptomatology have not changed over the years, however, the research related to the subject continues to advance, and each time new information is added to the already handled so far, according to research from Statista Research Department. from August 25, 2022 by 2025 by 2025 the average number of Alzheimer's patients will be 63.45 million people worldwide



Source: Statista 2022. Adapted by the researcher.

The data provided correspond to statistical data taken from statistic represents the number of people with dementia worldwide from 2015 to 2050. According to forecasts for 2015, the number of people affected by dementia reached more than 46 million people.

Data published by the Alzheimer's Association on Alzheimer's disease by 2022 reveal that more than 6 million Americans are living with Alzheimer's. By 2050, this number is projected to rise to nearly 13 million, as also established by the aforementioned association that 1 in 3 older people die with Alzheimer's or other dementia and by the characteristics of the disease mata more people than breast cancer and prostate cancer combined. Also within his comments he stated that in 2020, COVID-19 contributed to a 17% increase in deaths from Alzheimer's and dementia.

Likewise, the aforementioned Association has published as a result of its most recent research that at the age of 70, older people living with Alzheimer's are twice as likely to die before the age of 80 than those who do not have the disease, as well as that people aged 65 and older survive an average of four to eight years after an Alzheimer's diagnosis, however some live up to 20 years with Alzheimer's, which reflects according to the association "the slow and uncertain progression of the disease."

According to LaMotte⁶ neurologist Rudy Tanzy in an interview indicated that 42 additional genes related to the development of Alzheimer's disease were discovered, bringing the total to 75. Shortly after that revelation, another gene called MGMT was identified, and this could explain why women are two-thirds more likely to be diagnosed with Alzheimer's than men.

Likewise, the study's co-lead author, Lindzay Farrer, reported in an interview conducted by CNN "It is a specific finding for women, perhaps one of the strongest associations of a genetic risk factor for Alzheimer's in women," also LaMotte, continued to refer that the Alzheimer's disease is a multifactorial disease, composed of different pathologies, and each person has their own path. The disease presents differently and progresses differently in different people."

Farrer (2022) said: "A key genetic pathway is APOE ε4, a genetic variant responsible for encoding cholesterol-carrying proteins in the brain. Having one copy of the gene endangers people over the age of 65, while having two copies is considered the strongest risk factor for the future development of Alzheimer's disease in that age group."

In the same way the theorist expressed that it is not a fact. Some people with APOE ε4 do not develop Alzheimer's disease, while others without the gene may encounter the distinctive signs of tau tangles and amyloid beta plaques.

For Farrer (2022), one path to Alzheimer's is inflammation, "which is common to all chronic diseases," Farrer said. Several new genes discovered this year appear to play a role in how the body's immune system removes damaged cells from the brain.

According to Sánchez and Gutierrez⁷ scientists have developed a preventive and effective treatment based on immunotherapy. On June 7, in the midst of this bleak context, the U.S. Food and Drug Administration or FDA approved a drug for Alzheimer's by surprise. It is called Aducanumab (or Aduhelm, as it will be marketed by the pharmaceutical company Biogen), which places Aducanumab as the first disease-modifying drug approved for use. Its effect is not only symptomatic, the "memantine", was approved in 2003 but aims to slow or delay the progression of brain pathology.

It is Aducanumab, corresponds to a human monoclonal antibody that binds specifically to beta-amyloid, constitutes a passive immunotherapy in which antibodies are administered monthly intravenously to eliminate cerebral beta-amyloid. For all these reasons, the news seemed, at first glance, really hopeful.

Despite all the scientific discoveries, there are no reasons so far that establish the origin of the disease, for her part, Deborah E. Barnes in studies found that up to half of the cases of AD and dementia in the world can be attributed to potentially modifiable risk factors. Lack of education and smoking were the biggest contributors, suggesting that the most effective strategies for reducing the prevalence of AD may be anti-smoking education campaigns. Other research alludes to the relationship between cognitive decline and certain vascular and metabolic conditions such as: heart disease, stroke, high blood pressure, diabetes and obesity. Clinical intervention investigations into these factors would prevent cognitive decline.

There is recent evidence that some lifestyle factors are linked to the development of Alzheimer's disease, many are potentially modifiable and include smoking, physical exercise, education, social engagement, cognitive stimulation, and diet. Modifying most of these factors is advantageous for health, by modifying the lifestyle of the individual, the potential benefits increase.

Methodology

The method used in the research was the Documentary-Bibliographic method, according to Tamayo⁸ Bibliographic design is "the use of secondary data, that is, those that have been obtained by others", This type of research is widely used in the social sciences and is characteristic of the qualitative research model, where it constitutes an objective in itself. However, it is present in all types of research, because only from documentary research are known the background of the problema or the state of the art.

For Arias⁹ documentary research is: "a process based on the search, retrieval, analysis, criticism and interpretation of secondary data", says the aforementioned author that it is data obtained and recorded by other researchers as defined by Tamayo, as mentioned above serves as support for all research designs, of course it has its own conclusions as a result of the literature consulted and the perspective or level of analysis of the researcher.¹⁰⁻¹²

Conclusion

After reviewing the literature referenced in the research, it has been concluded that there is a lot of literature that offers information on Alzheimer's disease and most research agrees that it is obviously a social problem. In an earlier time many families lived in the same house, parents, grandparents, uncles and many of the children who married stayed in the house, of course they were homes with enough space to house all the members of the family, which brought as a positive consequence that the oldest were cared for by the youngest who cohabited in the same home and as they were large families it did not represent "a family burden".

With the passage of time, the emergence of postmodernity, the rise of technology, the change of the economy, change of family values, the family was reduced "to the family nucleus", made up of father-mother-children and the elderly were left in the care of third parties, in many cases specialized in the care of them and the diseases that advanced age brings, including Alzheimer's, at best, at other times they are left to their fate

In the same way, it should be noted that countries in general do not have a social service that treats Alzheimer's cases properly and it must be done privately according to the income and economy of the relatives of those involved in the disease, the services to attend to it are very expensive, from consultations with specialists, laboratory tests and specialized care staff. The predominant factor in the care of the disease is the economic, if there are good economic resources, the patient is well cared for, if on the contrary it is a family of scarce resources the patient unfortunately becomes both an economic and emotional burden.

It is important to note that an early diagnosis of the disease can reduce the effects of it, to finish it should be mentioned that it is important that within social policies, governments must include prevention programs, medical care and support for the relatives of the sick, given the circumstance that regardless of the economic situation the relatives feel overwhelmed by the changes they observe in the attitude of the involved, causing high levels of stress, which in the long run influences human health.

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None.

Conflicts of interest

The author declares there is no conflict of interest.

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