

## The Definition Of Dementia in The Qur'an\*

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### ABSTRACT

**Introduction:** The importance of the nervous system is accepted in Islamic theology. Especially according to the Qur'an, sunnah and works of Muslim scholars, the functionality of the nervous system is mentioned. Dementia, also known as dementia, is defined as a significant decrease in multiple cognitive domains, compared to the previous level of qualification, making it difficult to act independently on its own. In this study, the verses related to dementia in the Qur'an, which is the primary element of Islamic theology, are carefully examined and discussed in the light of current neurological information. Islamic societies should be informed about dementia. Working together with neurologists and religious educators on dementia will greatly contribute to the field.

**Methodology:** In the study, the content analysis method, which is one of the qualitative research methods, is used in the research, and the subject is based on neurological and theological information. This study aims to examine the concept of dementia in the Qur'an from a neuroscience perspective and to reveal the similarities between modern science and the Qur'anic expressions.

**Results:** Depending on the results that we have obtained, the common knowledge of the Qur'an and neurology about dementia are presented.

**Conclusions:** As a result, in the Qur'an, it is explained that when the individual ages, his mental activities decrease, the creation is reversed and the individual becomes unknowing while knowing. When the neuroscience studies and the Qur'anic verses are evaluated together, it is clear that the definition of dementia in the Qur'an coincides with neuroscience.

**Key Words:** Qur'an, Dementia, Neuroscience, Islamic theology

### INTRODUCTION

Cognitive neuroscience is a discipline that studies the biological processes underlying cognition in general, especially the neural connections in the brain involved in mental processes. Behavioral neuroscience coincides with disciplines, such as cognitive psychology and physiological psychology (Gazzaniga, M. S., Ivry, B. R., and Mangun, G. R., 2002). Cognitive neuroscience that is developing as a multidisciplinary structure, is discussed as a part of science, religion and philosophy (Karakas, S., 2003). The importance of the nervous system is accepted in Islamic theology. Especially in the Qur'an, sunnah and the works of Muslim scholars, various activities related to the functionality of the nervous system are mentioned (Tumiran, M. A., et al, 2018). However, non-formal education system practices and the use of different terminological languages cause the distinction between traditional neuroscience and the scientific perspective which manifested in Islamic theology, and it complicates the exchange of information between these two fields (Harrison, V. S., 2006; Tumiran, M. A., et al, 2010)

Examining basic cognitive processes such as memory and learning forms an important aspect of cognitive neuroscience. Damages during these processes can result in various diseases, such as dementia. Dementia, also known as dementia, derives from the word 'mens', which means "mind" in Latin and means "the later loss of the established acquired mind" (Kandel, E. R., et al, 2013). According to The Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5), dementia is defined as a significant decline compared to the previous level of competence in multiple cognitive

areas, which cannot be explained by another psychiatric disorder and does not occur during delirium, making it difficult to act independently on its own.

Although dementia is a common disease in older age, the frequency of its incidence increases twice every five years after the age of 65. While the probability of being seen between the ages of 65-69 is 2-3%, this rate rises up to 30% over the age of 80. The number of patients, which is approximately 50 million worldwide, is estimated to increase to 152 million by 2050 (Fiest, K. M., et al, 2016). It is thought that trying to understand the concept of dementia in the light of neuroscience through the verses of the Qur'an can help effective implementation of dementia approaches in Muslim communities of different cultures around the world. Therefore, in this article, it is aimed to examine the concept of dementia in the Qur'an from a neuroscience perspective and to reveal the similarities between modern science and the Qur'anic expressions.

## METHODOLOGY

The content analysis method, which is one of the qualitative research methods, is used in the research, and the subject is based on neurological and theological information. The concept of dementia in the Qur'an from a neuroscience perspective was examined and revealed the similarities between modern science and the Qur'anic expressions.

### The Definition of Old Age and Dementia in the Qur'an

The Qur'an evaluates the creation of human being as elementary, embryological and biological phases, and takes the biological processes of creation as prenatal, infancy, childhood, youth, adulthood and old age (Surah of al-Anbiya' 21/30, Surah of al-Haj 22/5, Surah of as-Sajdah 32/7, Surah of as-Saffah 37/1, Surah of al-Hijr 15/28, Surah of ar-Rahman 55/14, Surah of al-Mu'minin 23/14). In the Qur'an, the concept of old age is expressed with the concepts of “شيخ; sheikh”, “شَيْبٌ; sha'ib”, “كِبَرٌ; kiber” and “عَجُوزٌ; ajuz” which means that they are in the future and being fond of age. (Surah of al-Hud 11/72, Surah of Yusuf 12/78, Surah of ar-Rum 30/54, Surah of al-Muzzammil 73/17, Surah of al-Baqarah 2/266, Surah of Aali Imran 3/40, Surah of Ibrahim 14/39, Surah of al-Hijr 15/54, Surah of al-Isra' 17/23, Surah of Maryam 19/8, Surah of Hud 11/72, Surah of Adz-Dzariyah 51/29, Surah of ash-Shu'ara' 26/171, Surah of Saffat 37/135) The senility that occurs in old age, the change of creation, the state of being in shape, the form of “Tanqis”, as well as the loss of mind in old age, the state of indulgence, the forgetfulness that occurs in old age, and the loss of mind are described with the expression “ardhal al-'umur”. The concept of “تنقيس; Tenqis” is that the creation is upset, ardhal al-'umur describes the troublesome, problematic and dementia situations in old age rather than the condition. In the Qur'an, “To whomever we give long life, we reverse it as of creation (we decrease its power). Will they still not think?” it is stated that the creation of a person will change as he ages, the person will become disfigured, bodily creation will be reversed, and there will be deficiencies in the body (Surah of Ya-Sin 36/68, Taberi, 2010). The word “tenqis” in the verse derives from the word “نكس; neqs” means that something is reversed and turned upside down, and the word refers to the relapse and re-emergence of something etymologically.

The appearance of childhood or infancy in old age shows that the person has returned to the beginning of his creation, just like the disease recurs due to the fact that anyone who recovers from any illness experiences the same disease again. (Bilmen, 1965). In old age, the person's weakness, impotence and feebleness increase, the resulting physical weakness also manifests itself in the heart, in mind, the person becomes unaware of what they know (Razi, 2002; Zemaşeri, 2015). So much so that the person whose line of creation is reversed creates dementia and the person becomes unable to use his mind in the way he used before (Maturidi, 2017). Therefore, in this verse, the biological structure and the psychological structure of the human being start to collapse in parallel with this structure; the laws of growth and development have become functional backward, and the dementia situation of the individual is emphasized (Bayraklı, 2003).

The phrase “أَرْدَلِ الْعُمْرِ; ardhal al-'umur”, which is mentioned twice in the Qur'an, refers to the most miserable and the most shabby state of life, from the rational mind to dementia, to become unaware of anything (Razi, 2002). Allah created you; then he will kill you. Some of you are brought to the most difficult age of your life, while you are knowledgeable, you know nothing. Surely Allah is

knowledgeable and mighty.” In the verse, after drawing attention to the creation and death of the human, an evaluation is made about the process between birth and death (Surah of an-Nahl 16/70). It is reported that man has been created with a certain piece of hardware, has become strong, knowledgeable and manageable in time, and when he reaches a certain age, he loses his power, knowledge and even his intellectuals (Maturidi, 2017). In this verse, it is stated that not only all the elderly but some old people forget their past experiences and cannot remember the new information they have learned, as well as not being able to develop new intellectual skills and acquire new information in addition to their previous ones (Zemahşeri, 2015). Therefore, it is understood that with biological aging in some elderly people, the brain mechanism loses some of its abilities, it cannot perform its normal functioning and its duties properly (Bayraklı, 2003).

In the other verse where the dementia situation that human beings can experience during old age, the expression “ardhal al-‘umur” is described as the last stage in the creation of man. “O mankind! If you have a doubt about the Resurrection, (consider) that We created you out of dust, then out of sperm, then out of a leech-like clot, then out of a morsel of flesh, partly formed and partly unformed, in that order. We may manifest (our power) to you; and We cause whom We will to rest in the wombs for an appointed term, then do We bring you out as babes, then (foster you) that ye may reach your age of full strength; and some of you are called to die, and some are sent back to the feeblest old age so that they know nothing after having known (much)” (Surah of al-Haj 22/5) The word “أَشُدُّ” ashudda” in the verse shows that the power, mind and appeal to ability are the most perfectional state at the same time, while all organs and limbs have become the strongest, “ardhal al-‘umur” shows that the power of mind and appeal in old age is weakened (Zemahşeri, 2015; Maturidi, 2017). In other words, as an embryo, the human being gradually reaches the highest level physiologically and psychologically as well as gradually reaching the lowest level in old age, and at a point he knows he experiences nothing (Zemahşeri, 2015).

### **The Definition of Old Age and Dementia in Neurological Perspective**

Dementia is persistent, often progressive, slow in terms of its natural course, which disrupts more than one cognitive area, the appearance of behavioral disorders, and associated daily disability, as a result of damage to the adult central nervous system without confusion. Motor, autonomic and sleep disorders can also be added to this table (Gurvit, H., 2004). Alzheimer's type dementia constitutes 60-80% of advanced age dementias (Fiest, K. M., et al, 2016). The National Aging Institute-Aging Association (NIA-AA) has reviewed the diagnostic criteria for Alzheimer's disease (AH) and its disease is classified into three stages (Sperling, R. A., et al, 2011; McKhann, G. M. et al, 2011). The first stage in which pathophysiological changes began years before clinical manifestations in 'Pre-clinical AH', there is no evidence of clinical and behavioral symptomatology other than mild episodic memory change, and standard neuropsychological tests are in the normal range. At this stage, amyloid accumulation specific to AH decreased brain cortical thickness, and hippocampal atrophy begin with neuronal dysfunction (Sperling, R. A., et al, 2011).

With the increase in brain amyloid accumulation and neuronal damage, the disease progresses towards the 'Mild Cognitive Disorder' stage. At this stage, patients are completely independent in their daily life activities, but they have memory defects that are noticed by their relatives and show significantly lower performance in neuropsychological examination (Albert, M. S., et al, 2011). According to their previous situation, the last stage in which there is difficulty in work or daily activities and objective cognitive deterioration revealed by cognitive tests is accepted as the "Dementia" stage. At this stage, patients' skills to acquire and remember new information are impaired. The ability to cope with complex tasks and judgment is weakened. Impairment in visual-spatial skills and linguistic functions is observed. There may be changes in personality, behavior and attitude (McKhann, G. M., et al, 2011).

Today Reisberg, which has developed the Global Distortion Scale - widely used for Alzheimer's type dementia staging - suggests that the progressive destruction process in AH is the reverse of the developmental process of the person in the form of infancy-early and late childhood and adolescence, and this progressive destruction is called retrogenesis (Reisberg, B., et al, 1988). The patient with mild dementia may show more obvious forgetfulness for recent events and may

disappear in foreign places. At the same time, the patient is often unable to pursue his hobbies and loses his interest in current events. Although the patient can perform simple and monotonous work independently, he loses his productivity in working life and social life. When it comes to the middle dementia stage, it is seen that it is not possible for the patient to learn new information and the understanding is gradually deteriorating. Especially at this stage, patients lose their independence outside the home, but their home activities continue despite their reduced functionality within the home. At the same time, patients can carry out their daily life activities, even with help. In the stage of severe dementia, there is a severe level of forgetfulness, time and place orientation is impaired, judgment and problem-solving ability become an individual who has disappeared, lost his independence completely outside the home, has no obvious activity at home, and needs a lot of help for dressing, hygiene and other personal care (Morris, J. C., 1997).

## CONCLUSION

In this study, the verses related to dementia in the Qur'an, which is the primary element of Islamic theology, were carefully examined and discussed in the light of current neurological information. The Qur'an deals with the old age period in the biological phases of man and declares that some aging people may not know what they acknowledge and can experience dementia, and expresses this dementia with the term "ardhal al-'umur". The Qur'an states that this period is the fondest and the most troubled phase for the individual, dementia occurs in this period and the individual's mental abilities are weakened (Maturidi, 2017). Despite having a lot of knowledge and power especially in the life period of the youth, the difficulty of not knowing what they know together with dementia during the old age phase is explained (Bayraklı, 2003). Both the Qur'an verses and current neurological information indicate that the incidence of dementia increases with aging, there is damage in more than one cognitive area, especially the ability to obtain new information, there is a decrease in the functionality of the person due to the progressive course of the disease, and the developmental process is reversed with the increase of the dementia stage.

As a result, in the Qur'an, it is explained that when the individual ages, his mental activities decrease, the creation is reversed and the individual becomes unknowing while knowing. When the neuroscience studies and the Qur'anic verses are evaluated together, it is clear that the definition of dementia in the Qur'an coincides with neuroscience. Conducting other detailed studies to investigate the presence of dementia preventive suggestions and treatment approaches in the Quran are important for establishing theological and neurological connections. Islamic societies should be informed about dementia. Learning the Qur'an can help in learning some diseases. Working together with neurologists and religious educators will make a great contribution to the field considering that they can highlight information from Islamic literature about dementia and they may help increase awareness about dementia in the Islamic World.

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