

## Review Article

## A Mental Health Problem: Dementia

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**Article History**

Received: 08.02.2020

Accepted: 21.02.2020

Published: 29.02.2020

**Journal homepage:**<https://www.easpublisher.com/easjpbs>**Quick Response Code**

**Abstract:** In this article, the occurrence, diagnosis, varieties, and prevalence of dementia in the world are discussed in the context of international literature. Dementia is not the name of a single disease but is the common name given to all diseases that lead to impaired memory and similar mental abilities. All of these diseases cause a number of changes in the brain, revealing specific findings of the disease. Dementia diseases are not an expected and absolute condition of the aging brain. Alzheimer's disease accounts for more than 60% of all dementia. 'Vascular dementia', which occurs after a stroke, is the second most common type of dementia. Some of the diseases diagnosed as dementia are diseases that have no definite cure and make it impossible to return to the old state (such as Alzheimer's), while others are diseases that can be cured by treatment. There is no definitive way to prevent dementia, but some changes in living standards can delay the onset of dementia or slow its progression. If you have any doubts about dementia, don't forget to check up.

**Keywords:** Dementia, Early dementia, Types of dementia.

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### INTRODUCTION

According to the World Health Organization (WHO), the concept of mental health is expressed as subjective well-being, perceived self-efficacy, autonomy/ self-determination, competence/ perfection, intergenerational dependence, and the ability to realize one's intellectual and emotional potential. It has also been described as a state of well-being in which individuals recognize their abilities, copes with the normal stress of life, works productively and efficiently, and contribute to their communities (World Health Organization (WHO), 2003).

There are a wide variety of mental health problems. In general, abnormal thoughts, perceptions, emotions, behaviors, and problems in relations with others between mental disorders that are characterized by a combination of depression, bipolar disorder, schizophrenia and other psychosis, dementia, and autism can be sorted. Today, 264 million people are known to have been diagnosed with depression, 50 million people with dementia, 45 million people with bipolar disorder, and 20 million people with schizophrenia and other psychosis (WHO, 2019a). In the world, mental, neurological and substance use disorders account for 10% of the global disease burden and 30% of the non-fatal disease burden. About half of the mental disorders begin before the age of 14, and the expected life expectancy decreases by 10-20 years due to serious mental disorders (who, 2019b). Studies of

adults over the age of 60 and 20% in mental or neurological disorder, total disability for this age group of 6.6 percent of DALYs – Disability-adjusted life Years disability-adjusted life years) originated from mental and neurological diseases, these disorders in the elderly year of 17.4 percent of the Disability (years lived with disability-YLDs) has shown that (WHO, 2019c; GBD, 2018).

Globally the population is aging rapidly. Between 2015 and 2050, it is expected that 12-22% of the world's population will be made up of adults over the age of 60. Mental health and well-being in older age are just as important as in other life periods (WHO, 2019c). Dementia and depression, which affects about 5-7% of the world's population, are among the most common mental and neurological disorders observed in adults aged 60 and over. Other problems observed in the elderly include anxiety disorders (3.8%) and substance use problems (1%), making up about a quarter of self-harm deaths in people aged 60 and older (WHO, 2019c; GBD, 2018). It has been reported that there is a higher risk of mental health disorders among the poor, homeless, unemployed, under-educated, victims of violence, migrants or refugees, neglected and abused elderly people who are also disadvantaged (WHO, 2003). Furthermore, the problem may become even more serious due to the fact that mental health problems are not adequately known or ignored by

health professionals and the fear of stigma in society (WHO, 2019c).

Mental health problems pose significant public health problems as they affect not only the individual but the entire community and pose a major challenge for Global Development (WHO, 2003). Mental health problems are caused by single or multiple risk factors, while stresses common to all people in the elderly are at a disadvantage. In addition, this problem is observed more due to decreased capacity and functional abilities in later ages. For example, older adults may experience the mobility, chronic pain, fragility, or some health problems that require some long-term care. In addition, older people are more likely to experience adverse life events, such as a decline in socioeconomic status with retirement or the death of their peers. All of these stressors can result in isolation, loneliness or psychological distress (anxiety, stress, depression) requiring long-term care in the elderly (WHO, 2019c).

Mental health and physical health are interrelated. For example, older adults with heart disease have higher rates of depression than healthy ones, while untreated depression in an older person with heart disease can exacerbate the disease (WHO, 2019c).

Older adults are vulnerable to their physical, verbal, psychological, economic and sexual abuse. Other problems they have experienced include abandonment, neglect and severe losses of dignity and respect. Available evidence suggests that 1 in every 6 older people experience elder abuse. Elder abuse can lead not only to physical injuries but also to serious and long-term psychological consequences that include depression and anxiety (WHO, 2019c).

## **DEMENTIA**

Cognitive function in normal aging and dementia in the community dementia is characterized by a deterioration beyond the expected by also known as; memory, thinking, orientation, comprehension, calculation, learning, language, and reasoning, usually of chronic or progressive deterioration inability to perform daily activities behavior and nature is defined as a syndrome of. Impairment in cognitive function is often accompanied by impairment in emotional control, social behavior, or motivation (Garre-Olmo, 2018).

Although dementia fundamentally affects older people, it is not a normal part of aging. Furthermore, dementia is one of the main causes of disability and addiction among older people around the world, with the prevalence and incidence of dementia increasing exponentially from the age of 65 (WHO, 2019d). Cognitive decline, physical activity, and depressive symptoms have been shown to be associated with age differences in Taiwanese age 70 and older (Chang and Wang, 2019). Today it is estimated that 50 million people in the world have dementia, with about 10

million new cases observed each year, rising to 82 million in 2030 and 152 million in 2050 (WHO, 2019c, d). In community-based studies conducted, age-standardized dementia prevalence was found to be between 5-7% (Lopez and Kuller, 2019).

Alzheimer's disease is the most common form of dementia, accounting for 60-70% of dementia cases (WHO, 2019d). In 2016, nearly 2 million deaths were observed due to Alzheimer's and other types of dementia, which ranked fifth among global causes of death in all ages and both sexes. This ratio is 27 percent for both sexes, 18 percent for males and 35 percent for females. Deaths from Alzheimer's and other dementia cause ranked fifth in upper-middle-income countries, and third in high-income countries (WHO, 2018). Alzheimer's disease, the sixth-leading cause of death among adults in America, has been reported in fifth place among adults age 65 and older (Center for Disease (CDC), 2019). Dementia is caused by a variety of diseases and injuries that affect the brain as primary or secondary, such as Alzheimer's or stroke (WHO, 2019d).

### **Symptoms of Dementia**

Dementia can occur in different ways, depending on personality, before affecting patients and falling ill. Signs and symptoms associated with dementia can be understood in three stages.

**Early Stage:** due to the gradual onset of dementia, it is often late noticed or ignored. Common symptoms include forgetfulness, losing track of time, getting lost in familiar places.

**Mid-Stage:** signs and symptoms become more pronounced and more restrictive as dementia progresses to mid-stage. These include forgetting recent events and people's names, getting lost at home, increasing difficulties in communication, needing help with personal care, experiencing behavioral changes including navigating and repetitive questioning.

**Late-Stage:** the late stage of dementia is close to full addiction or inactivity. In this stage, memory impairments become more serious and physical signs and symptoms become more pronounced. Being unaware of time and space, having difficulty recognizing relatives and friends, an increased need for assisted personal care, difficulty walking, experiencing behavior changes that can increase and increase aggression are common findings (WHO, 2019d).

### **Common Forms of Dementia**

The number, onset, duration, severity, clinical course, and presentation of dementia-specific cognitive dysfunctions provide an understanding of distinguishing features from other diseases, as well as the distinguishing features of different subtypes are also examined according to these characteristics (Garre-

Olmo, 2018). There are many different types of dementia. Alzheimer's disease, vascular dementia, Lewy body dementia, frontotemporal dementia are among the most known species (Garre-Olmo, 2018; Who, 2019d; Lopez and Kuller, 2019).

The most common cause of primary dementia is Alzheimer's disease, while secondary dementia is vascular dementia.

The boundaries between different forms of dementia are unclear and are mostly found in the mixed form (Garre-Olmo, 2018; WHO, 2019d; Lopez and Kuller, 2019). In a study conducted with applicants to the neurology outpatient clinic in Brazil, 68.8% of cases were diagnosed with dementia, of which 48.9% had Alzheimer's type dementia, 11.3% had vascular dementia, and 7.8% had mix dementia. The most affected were in the 71-80 age group, women, whites and 1-4 years of Education (Souza *et al.*, 2019). The most common types of dementia, in general, include the following characteristics: Alzheimer's disease: this is the most common cause of dementia and accounts for 60-80% of cases (CDC, 2019). Neurodegenerative accumulation in the brain starts from middle age, the first findings occur after age 65 and this condition reveals the relationship of dementia with age. It is observed with difficulty remembering a conversation or recent events that took place minutes or hours earlier. Other difficulties may also arise, such as difficulty walking or speaking, or personality change. Family history is one of the most important risk factors in Alzheimer's disease, increasing the risk of development by 10 to 30% (CDC, 2019).

**Vascular Dementia:** 20-30% of all dementia is vascular dementia (Yavlal and Aydın Güngör, 2016). 10% of dementia cases are associated with stroke or other conditions with blood flow to the brain. Diabetes, high blood pressure, and high cholesterol are among other risk factors (CDC, 2019; Lopez and Kuller, 2019). The course of the disease is proportional to the extent of the infarction area and Intellectual Destruction, and in which area the infarction occurred, the dysfunction of that area is experienced. In a systematic review conducted, the prevalence of cognitive impairment was reported between 9-29% before intracerebral hemorrhage and 14-88% after. The most common cognitive areas affected after intracerebral hemorrhage have been found to be computing speed, executive function, memory, language, and visual-spatial abilities (Donnellan and Werring, 2019).

**Lewy Body Dementia (abnormal behavior of protein that develops in nerve cells):** Lewy body Dementia is observed by settling Lewy bodies containing alpha-synuclein in some regions and there are tegmental dopaminergic cell destruction and basal cholinergic loss. In addition to more typical symptoms such as memory loss, people with this form of dementia

may have movement or balance problems such as arrest or tremor. Many people experience sleepiness, confusion or changes in gaze during the day. She may also have difficulty sleeping at night or have hallucinations (CDC, 2019).

**Fronto-Temporal Dementia (degeneration of the frontal lobe of the brain):** this type of dementia is characterized by neuronal degeneration in the frontal and temporal structures and most commonly due to the affected part of the brain, causes changes in personality and behavior. People with this condition may experience problems due to antisocial personality disorders. There may also be problems in speech, comprehension and language skills (CDC, 2019).

**Mix dementia:** sometimes more than one type of dementia can be found in the brain at the same time, such as having both Alzheimer's disease and vascular dementia. Especially those aged 80 and older are more at risk. Disease progression may be faster than a species-specific one. Reversible dementia: in people with dementia, the side effect of the drug can be an underlying cause, including increased pressure in the brain, vitamin deficiency, and thyroid hormone imbalance. Retrospective causes of the cause of the disease in this form of dementia should be screened (CDC, 2019).

## RISK FACTORS OF DEMENTIA

Although age is the strongest known risk factor for dementia, it is not an inevitable consequence of aging. Dementia, which affects those aged 65 and over more, can also, be observed before age 65. (WHO, 2019d; CDC, 2019). Family history and race/ethnicity are other risk factors. The presence of dementia near the first degree increases the risk. Also, older African Americans are twice as likely to have dementia as older whites, and Hispanics are one and a half times more likely. High blood pressure, high cholesterol, smoking, and alcohol use, which are non-communicable risk factors, increase the risk of dementia. If emerging chronic diseases are not treated appropriately, dementia is likely to develop (CDC, 2019; Lopez and Kuller, 2019). A study conducted in Singapore with people aged 75 and over found a higher risk of dementia in those educated or educated at the primary school level, those who were housewives and retired, and those with a history of stroke (Subramaniam *et al.*, 2015). Orthostatic hypotension was found to be more common in Alzheimer's patients and Lewy body dementia than controls.

A study in the literature has shown that physical activity, smoking, and social interaction significantly affect the mental health of the direct and indirect influencer, with a significant relationship between physical health and mental health (Ohrnberger *et al.*, 2017). A cohort study conducted in the United States found that current smoking increased the risk of

dementia by 1.33 times and 1.24 times in those who quit smoking 9 years ago, compared to those who never smoked. Although the benefit of quitting at any time has been suggested, it has been reported that dementia risk is linked to time after smoking cessation and that quitting at an early age is important to reduce the risk of dementia (Deal *et al.*, 2019). A study conducted in Portugal found that cognitive impairment was determined in 41.7% of the elderly living in long-term care institutions, dementia was determined in 26.1%, and the level of education was determined in terms of mental problems (Daniel *et al.*, 2019). Additionally, the risk of dementia is more likely in recurrent traumatic brain injuries and severe head injuries (CDC, 2019). Other risk factors include depression, social isolation, and cognitive inactivation (WHO, 2019d; CDC, 2019).

### Effects of Dementia

Dementia has a physical, psychological, social and economic impact on the patient himself, his caregivers, their families, and the community in which he lives (WHO, 2019d). One study found that only 25.5% of people living with dementia received any paid care, while 10.8% received 20 hours or more of paid care per week, equivalent to about half of the help they needed to receive. About half (48.3%) of patients with dementia with impairments in dressing, bathing, toilet, medication, and finance management were found to have been given care. It was determined that men, unmarried people, and those with more needs in daily living activities were more injured in paid care (Reckrey *et al.*, 2019).

In terms of direct medical and social care costs and informal care costs, dementia has significant repercussions not only on the family but also on national spending. In 2015, the total cost of the global dementia burden was estimated to be the US \$ 818 billion, equivalent to 1.1% of Gross Domestic Product. In terms of the total costs of dementia, expenditure from GDP was reported at 0.2% and 1.4% in low-to middle- and high-income countries (WHO, 2019d). In the United States, in 2010, the cost of treating Alzheimer's disease was estimated to be between \$ 159 and \$ 215 billion, and in 2040, it was estimated that these costs would exceed \$ 379 to \$ 500 billion annually (CDC, 2019).

These diseases, which lead to a loss in both national and household spending, cause physical, emotional and financial stress in the individual, family, and community. This requires support from the health, social, financial and legal systems (who, 2019d). In a meta-analysis carried out (Netherlands, UK, Poland, Ireland, Germany, Norway, Portugal, Italy, and Sweden) mental activities, food, domestic activities, money were among the most common needs of dementia patients living at home. Understanding the prevalence of the needs of dementia patients has been reported to be helpful in planning services to meet these

needs (Curnow *et al.*, 2019). It is also estimated that death rates for Alzheimer's disease in America are increasing, contrary to the decline in heart disease and cancer death rates, are not adequately reported, and therefore the proportion of seniors dying from Alzheimer's is considerably higher, and the actual burden is greater (CDC, 2019).

## TREATMENT, CARE AND PREVENTION IN DEMENTIA

Access to health care is a major public health issue. In low- and middle-income countries, it has been reported that 76-85% of people with mental disorders do not receive treatment. The lack of access to quality service is another problem for those who take care. In addition, social support and care is an important requirement in these diseases (WHO, 2019a). A study conducted in Greece reported that older adults living in rural areas with mental disorders and not receiving adequate mental health services for socioeconomic and geographic reasons could be provided by creating mobile mental health units and through primary care physicians (Peritogiannis and Lixouriotis, 2019). But the proportion of mental health workers is below 2 per 100,000 populations in low-income countries and below 70 per 100,000 in high-income countries. The global economy is losing about the US \$ 1 trillion a year in productivity due to depression and anxiety (WHO 2019b). Therefore, the number of staff working in the field of mental health needs to be increased.

Understanding the prevalence of the needs of dementia patients can help in planning services to meet these needs (Curnow *et al.*, 2019). One of them is that understanding the physiological effects of age can help prevent the cognitive decline of the elderly (Chang and Wang, 2019). It has also been shown to be associated with dementia in its social involvement. A 12-year cohort study carried out in the UK found that directing older adults to leisure activities in society to help promote healthy cognitive aging reduced the risk of dementia. Not only social factors but also community involvement (joining clubs or communities) and cultural activities (visiting museums, galleries, theatres) have been reported to protect from dementia (Fancourt *et al.*, 2020). It is possible that the burden of dementia on public health will decrease in the future with primary protection for risk factors (Garre-Olmo, 2018).

An appropriate and supportive legal environment based on internationally recognized human rights standards is required to provide the highest quality of service to people with mental illness and their caregivers (WHO, 2019c).

## CONCLUSION

When the rapidly increasing elderly population and risk factors are taken into account, dementia and its types are expected to increase gradually. The control

and management of symptoms in patients with dementia, the development and implementation of intervention programs for the maintenance and improvement of cognitive function, dementia patients care, rehabilitation and home care services and the improvement of the provision of caregivers must be supported. To increase awareness of the community and health workers, to make health workers qualified in the field of mental health, to increase the number of mental health workers, to organize screening and training programs for disadvantaged groups, to create environments that will lead society to Active Healthy Aging, to provide social support to those with mental problems and care providers, especially those with dementia, too, the establishment and implementation of qualified policies requires continuous initiatives to protect against dementia and reduce the burden of dementia.

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