

# EMENTIA AMONG THE EDLDERLY: PREVALENCE, RISK FACTORS AND COPING MECHANISM

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## Abstract

*Health as a quality of life and indispensable asset is desirable by all and at all ages including advanced age. Healthy aged are of high value especially in the African culture as they are endowed with wealth of experience, knowledge, wisdom and virtues. However, age advancement is usually accompanied with one or more debilitating conditions such as dementia, a health condition in which cognitive functions are deteriorated in a degree that affect everyday life. It is a major cause of disability and dependence in older citizens. This paper is on prevalence, risk factors, impact and coping mechanism. School and Occupation health education are therefore recommended among others to increase the knowledge of risk factors and mitigate the accompanying burden of the disease.*

**Key Words:** *Dementia, Risk factors, Prevalence, Coping mechanism, Retiree*

## Introduction

Health is an indispensable asset which global community overtime tirelessly labour to promote and as much as possible maintain for the purpose of productivity, development and attainment of quality living. Decline in health status automatically reduces productivity, and quality of life. It is evident that the world is faced with several health issues such as upsurge in epidemics, different chronic and acute ailments. The United Nations through the collaborative effort of the member nations is unwavering in a bid to ensure healthy lives and promotion of wellbeing for all at all ages; the proclamation which is the number three goal in this era of sustainable development (United Nations Development Programme (UNDP) (2022). The goal aims to achieve universal coverage with child and maternal health care, HIV infection and some other communicable diseases though ageing and aged population care seems downplayed (UNDP; UN, 2022).

Healthy aged are highly invaluable in the community especially in African culture; wealth of experience and wisdom resides in their tents and many of them serve as repository of knowledge, culture and virtues. However, age advancement is usually accompanied with one or more health challenges due to physiological changes. Such challenges include among others; depletion of bones mass, arthritis, hormonal imbalance, periodontitis and loss of memory also known as dementia. The latter is an irredeemable loss of cognitive function which disables daily functions of the sufferer. Dementia is a major cause of disability and care dependence among older people globally and can be so burdensome not only for the sufferer but also for their care givers and families. This health issue according to WHO (2017; 2022) is becoming a public health concern as it is gradually becoming

prevalent globally with higher incidences projection among Low and Middle Income Countries of the world. Dementia has been found to currently be the seventh leading cause of disability, dependency, death among older people globally (WHO, 2021). The prevalence was projected in Akinyemi *et al* (2021), that by 2050, 150 million persons will be living with dementia across the globe; this call for serious proactive mitigation.

Retirees are often older people who have achieved the retirement age, varying from country to country (normally from 60 to 70 years or older). They also represent a unique demographic characterised with enormous experiences, wisdom, and resilience. As they transit from a structured work life to a more flexible lifestyle, they navigate a myriad of physical, mental, and social changes (Carmel and Tur-Sinai, 2021). These changes, can significantly impact their overall well-being and quality of life. Retirees especially those from the civil service, frequently display a variety of physical traits influenced by their age, way of life, and state of health. Many retirees do experience age-related physical changes, such as decreased strength and mobility, greater susceptibility to chronic diseases, and changes in sensory capacities, (Patel, Mathew, Nanda, Pati, & Nayak, 2021). Maintaining general health and functionality in retirement requires frequent physical and mental activities as well as good social interaction as this could delay the onset or outrightly prevent dementia. It is a mental health disorder resulting from physical condition of the brain in which the structure and chemistry of the brain is damaged. Dementia is gradually becoming a global health issue of concern. It is a slow progressive disease affecting memory and cognitive ability. People with dementia suffers a cognitive impairment, which includes function impairment in abstract reasoning, planning, and attention or skilled movements or language (Imami, Haryono, Anggraini, Hamdan & Hidayati, 2021). Gupta (2020) also defined dementia as a health condition in which cognitive functions such as concentration, self-management and visual understanding are deteriorated in a degree that affect everyday life. The World Health Organisation (WHO) (2012) affirms the global need to place dementia on national health agenda placing more attention on the sufferers in order to achieve the targets outlined in the global dementia action plan as well as create strategic links with existing global commitments such as the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) and the UN Decade of Healthy Ageing 2021–2030

Dementia is a syndrome in which there is deterioration in cognitive function beyond what might be expected from the usual consequences of biological ageing and that though, it mainly affects older people, it is not an inevitable consequence of ageing. The world Health Organisation (WHO) (2022) further noted that the disorder results from a variety of diseases and injuries that primarily or secondarily affect the brain with reference to Alzheimer's disease as the most common form of dementia with 60-70% of cases. Furthermore, Denning and Sandilyan in Ekoh, George, Ejimakaraonye and Okoye (2020) stated other types of dementia to include vascular dementia, fronto-temporal dementia, Creutzfeldt-Jakob disease, Parkinson's disease dementia, Huntington's disease dementia and dementia with depression. Literatures have it that more than half of all people with dementia are undiagnosed and one third are discharged from hospitals with reduced functional capacity in which their care givers are 20% more likely to experience mental health issues (WHO, 2017; WHO, 2022).

A demented individual can sometimes be moody and display some unusual behaviour. George (2010) also described the condition as a chronic and progressive neuro-degenerative disease identified by cognitive functional deficit as well as behavioural problems. The behavioural problems could be similar to many psychiatric disorder and thereby termed neuro-psychiatric or behavioural and psychological symptom of dementia. Such symptoms include: delusions, hallucinations, paranoia, depression, anxiety, aggression, wandering, sleep disturbances and inappropriate eating behaviour. Moonie (2005) also agreed that dementia, aside mental malfunctioning, may involve a range of issues manifesting unusual and challenging behaviour. Such behaviour may result from fear of illness or fear of dying, isolation and loneliness, hearing difficulties, reaction to physical illness or medication, frustration at not being able to control daily living activities due to disability, stress associated with disability or the reactions of other people, grief that is, emotional reactions following loss of a relationship and having low expectation of old age.

The health issue is not without its physical, psychological, social and economic impacts, not on the sufferers alone but also on their care givers, families and society at large. Dr Tedros Adhanom Ghebreyesus- the Director-General of the WHO in his word lamented that dementia robs millions of people of their memories, independence, dignity, and as well robs the rest of us of the people we know and love (WHO, 2021). This statement depict the irredeemable loss the health issue place on the sufferers and their loved ones while its impact on the economy is adversely outrageous. For instance, in 2019, the global cost of dementia was estimated to be US\$ 1.3 trillion. It was projected to increase to US\$ 1.7 trillion by 2030. (WHO, 2021). The psychological effect can be terrifying on both the care givers and or the family members especially in environments where there is little or no knowledge about the disorder.

### **Risk factors of dementia among the elderly**

Brain aging has been found to be one of the leading causes of neurodegenerative diseases, such as Alzheimer's disease, but brain aging alone can cause cognitive decline (Ahn, Lee, and Mook-Jung, 2022). Normal brain aging" refers to the idea that the aging of the brain in the absence of neurodegenerative illness is merely a normal process rather than a pathological condition. This idea has been refuted by new research and contends that the aging brain is diseased. Association in Ahn, Lee and Mook-Jung, (2022), noted that age is the biggest risk factor of serious neurodegenerative illnesses, including Alzheimer's disease type of Dementia. Additionally, cognitive reserve and stroke prognosis are significantly impacted by age-related changes in the brain (Umarova, 2017). Moreover, brain aging alone can significantly decrease a variety of cognitive functions, such as verbal memory, spatial orientation, and inductive reasoning (Hedden and Gabrieli,in Ahn, Lee and Mook-Jung,). Aaldijk and Vermeiren (2022), citing Aral *et al.*, 1984; Palmer *et al.*, 1987, Cross *et al.* (1984),

Tohgi *et al.*, (1992) stated that decrease, alterations and substantial loss in total brain serotonin content, particularly in the temporal and frontal cortex, of cerebrospinal fluid (CSF) serotonin levels are pathological to the onset of Dementia and confirmed in a more recent study by Solas *et al.* 2021 who observed correlation between aggressive as well as depressive symptoms and serotonin

levels. Serotonin is a body chemical (hormone) that carries messages between nerve cells in the brain and throughout the body. The chemical plays key roles in various body function such as influencing learning, memory, happiness, regulating: body temperature, sleep, sexual behaviour and hunger. Serotonin is made from an essential amino acid (tryptophan) gotten from consumed diet. Invariably, nutrition is directly or indirectly related.

In simple terms, the Pathology of Dementia can be described as the accumulation of protein aggregates called plaque due to an imbalance in the formation and clearance of some other small protein leading to intracellular damage, synaptic dysfunction and neuronal cell death, with localized reactive inflammatory processes accelerating damage especially in Alzheimer's type of Dementia. (Ward, and Pase, 2020; Jankovska, Olejar and Matej, 2022). Wong, Wang, Rui Xia Ang Sajikumar (2022) and also confirms that the main cause of this age-related cognitive deficit is due to aberrant changes in cellular and molecular circuitry. No matter the age of onset, the course of the disease spans a period of about 15 to 25 years as a continuum (Scheltens *et al.*, 2021) and that as at the time of pathology, the patient may be asymptomatic or have mild cognitive impairment (MCI) while symptoms gradually worsen over time in function of the progressive neuronal loss.

Moreover, there exists a positive correlation between cardiovascular risk factors, such as hypertension, diabetes, and obesity, and an increased susceptibility to the development of dementia. The presence of these factors has been associated with an increased susceptibility to developing dementia; nevertheless, the potential negative effects can be alleviated via the implementation of improved healthcare practices and lifestyle treatments. The most prominent risk factor for dementia is age as the likelihood of risk has an exponential growth pattern as one advances in age. Various lifestyle factors (modifiable factors) such as dietary patterns, levels of physical inactivity, social inactivity, and alcohol and tobacco consumption have the potential to exert an impact on the susceptibility to dementia. Yoneda *et al* (2022), in their study discovered that individuals higher in conscientiousness and extraversion, and lower in neuroticism, had more years of cognitive health span. According to the study carried out by Yong-Bo *et al* (2020), most of their respondents correctly recognized exercise, social activity, intelligence games, and reading as protective factors for delaying the onset of dementia. Sex, age, education level, type of job, and contact with patients with dementia had distinct influences on the awareness of protective factors for dementia. Compared with men, women knew more about the roles of exercise, intelligence games and reading in preventing following risk factors for dementia.

Knowledge of risk factors of dementia has been found to be inadequate especially in this part of the world. Previous studies shows that there was relatively low knowledge of dementia, and that it could be part of normal ageing though not inevitable. WHO (2021) affirmed lack of awareness and understanding of dementia in most countries and that this results in stigmatization, barriers to diagnosis and care. On cultural point of view, many community members view dementia as a consequence of wrong doing of the sufferer (karma) or punishment from God; result of witchcraft, insanity and the likes. Low knowledge about dementia subjects the sufferers to family neglects (as their children and family members perceived them bewitched), social isolation and abuse (Ekoh *et al.*). As yodemented individual is stigmatised, so the family members and their loved ones suffers shame and ridicules. Lack of awareness and understanding about issues surrounding dementia worsen the problem in many of the developing countries (Imami, Haryono , Sensusiaty , Hamdan & Hidayati, 2021). Alao (2023), however used drama method to create dementia awareness and found out that it was effective.

## **Prevalence of dementia among the elderly**

Several studies carried out on dementia by individuals and regional dementia consortium were done in developed countries while literatures confirm the paucity of such studies in Africa, though, cases of wandering aged seems more observable than ever in this part of the world. WHO (2021) confirm that research output on other Non-Communicable Diseases (NCDs) like cancer, heart conditions, kidney disease, diabetes and depression is up to 14 times higher compared to research on dementia as many cases are neither detected nor diagnosed perhaps due to lack of fund to receive quality health care and or ignorance. A study carried out on the prevalence of dementia between 2016 and 2017 by researchers from Columbia and Michigan Universities found that nearly one (1) in ten (10) U.S adults over age 65 have dementia; while another 22% have mild cognitive impairment (Hendreson, 2022; Manly, Jones, Langa, Ryan, Levine, Cammon, Heeringa, & Weir, 2022; Kim, Dunkle, & Clarke, 2023). The studies reveal that People with dementia and mild cognitive impairment are more likely to be older, have lower levels of education, and to be racialised as Black or Hispanic with similar rates of about 35% in Men and women in their 90s (Hendreson, 2022).

An estimate more than 55 million people are said to be living with dementia worldwide and there are nearly 10 million new cases every year (WHO, 2022). Other estimation from WHO in Akinyemi et al (2021) indicate that by 2050, 150 million persons, representing a 204% increase from 2017 will be living with dementia of which the majority would be in low and middle income areas of the world. The prevalence of dementia rapidly increases due to increase in population and according to WHO (2021), it is currently the seventh leading cause of disability, dependency, death among older people globally; and could be an irreversible condition which the sufferer and the care givers or family member would have to learn how to cope with.

The older population includes a special category known as government retirees. They enter retirement after years of a disciplined work life, which involves major lifestyle modifications. Their retirement plans may be jeopardized, their relationships may be tested, and their quality of life may be greatly diminished if dementia develops during this time. Several studies confirmed the prevalence of dementia among the elderly as age is a major risk factor. Previously published data on the Chinese and Malay reported prevalence of cognitive impairment and dementia 15.2% and 25.5%, respectively while the major risk factors of cognitive impairment were age, education, and hypertension.

Dementia represents a substantial global health concern, characterized by a rising prevalence observed over time. The incidence of dementia has an upward trend in correlation with advancing age, particularly beyond the threshold of 65 years. According to current data, the worldwide incidence of dementia in the elderly population aged 60 and above was approximated to be between 5% and 8% in the year 2021. Amoo et al (2020), also found that 36.3% of their respondents had a probable psychological disorder, while 25.4% had a probable cognitive impairment. 9.8% had a current definitive psychiatric disorder. The commonest disorders were major depressive disorder and dementia. The incidence of

dementia exhibits notable regional disparities, with high-income countries exhibiting higher rates in comparison to low- and middle-income countries. The prevalence of certain conditions is often higher in developed countries due to a combination of factors, including a bigger number of elderly population and a more robust healthcare infrastructure.

The phenomenon of a rapidly aging global population is anticipated to result in a significant rise in the prevalence of individuals affected by dementia. According to predictions, it is anticipated that the global population of individuals affected by dementia will potentially reach 152 million by the year 2050 (Nichols, Steinmetz, Vollset, Fukutaki, Chalek, Abd-Allah, 2022). Ogunniyi et al (2020) conducted a study to establish the occurrence rate of dementia in a group of 2494 old individuals residing in the Idikan Community within Ibadan metropolis, Nigeria. The researchers employed the Community Screening Instrument for Dementia to choose participants for clinical evaluation, which was one of the phases of their study and found Alzheimer's disease to be responsible for 64.3% of the cases in Ibadan. The important risk variables were old age and female gender, whereas living with others seemed to have a protective effect; risk factors for dementia included advanced age, residing in rural areas before the age of 19, having a poor level of education, and having a family history of dementia.

To effectively tackle the worldwide occurrence of dementia in the senior population, it is imperative to adopt a comprehensive strategy that encompasses various dimensions. This strategy should encompass heightened consciousness, extensive investigation into preventive measures and therapeutic interventions, enhanced healthcare systems, and provision of assistance to individuals responsible for caregiving. Series of the ongoing development of knowledge regarding dementia necessitates a prioritization of endeavours aimed at diminishing its occurrence and enhancing the well-being of individuals impacted by the condition.

### **Coping with dementia**

Coping is a strategy involving thoughts and behaviours mobilized to manage internal and external stressful situations (Algorani and Gupta, 2023). It is a distinctive, conscious and voluntary mobilization of acts directed to reduce or tolerate stress or unfavourable condition. Coping could be reactive or proactive in nature and can also be categorised as problem-focused which addresses the problem causing the distress; emotion-focused which aims to reduce the negative emotions associated with the problem; meaning-focused, in which an individual uses cognitive strategies to derive and manage the meaning of the situation; Social coping (support-seeking) in which an individual reduces stress by seeking emotional or instrumental support from their community. Thorsen, Dourado and Johannessen (2020) establish certain coping strategies which include education, physical and social activities such as gardening, decorating, outing with friends and family, travelling and avoidance of depressions. Many retirees may be coping with long-term diseases including diabetes, hypertension, or respiratory problems as well as dementia. It becomes important to manage these problems with medication, dietary adjustments, routine check-ups with the doctor (Sirant, Singh, Gaul, Stuart-Hill, Candow, Cameron and Neary, 2022) and social measures as maybe required. Adedeji, Lawal and Aluko-Arowolo 2023 also confirmed that spirituality, nutrition, exercises and social contact are effective means of coping among the elderly.

## Impact of Dementia

Dementia exerts not just individual-level repercussions but also engenders wider societal ramifications.

- i. Dementia is a major cause of disability and dependency among older adults (WHO, 2017)
- ii. Substantial strain on caregivers, frequently comprising family members, who have the responsibility of providing daily support and care
- iii. Diminished labour force efficiency and alterations in familial dynamics as well as loss in productivity for economy
- iv. Imposing of a significant financial and healthcare cost on the individual, family members and societies.
- v. Substantial financial exertion on governmental domains.
- vi. Burden of specialist care, long-term care facilities, and caregiver support on healthcare systems.
- vii. Diminished meaningful interaction between old and young folks which could lead to cultural poverty

## Conclusion

Dementia, without mincing word is becoming a global health issue of concern most especially among the elderly. The disease continue to rob the older generation of their wealth of experiences, wisdom, knowledge and virtue. This also prevent the younger generation access to the supposed inheritance mentioned above from their older relations. Studies have shown that there is paucity of knowledge of the risk factors especially in Africa. Knowledge of the risk factors (modifiable and non-modifiable) at a younger age could be of immense importance to delaying the onset, outright prevention and coping. Inclusion of 'Health challenges of the elderly and prevention' into school health education curriculum at all level of education might help in mitigating the undesirable impact of dementia. In addition, occupational health education should be more emphasised among workers of various establishments. Based on the findings, the below were recommended:

- a. Knowledge of the degenerating diseases (dementia inclusive), their prevention, mitigation and coping strategy should be provided at school age through school health education
- b. Occupational health education should be ensured for all levels of workers of both private and public workplace. This might help to keep people aware of the risk factors of dementia especially, mental, physical and social inactivity which may be part of their experiences after retirement. Prior knowledge of these factors can help foster coping.
- c. Mass media approach could be engaged to enlighten the populace on the risk factors (modifiable and non- modifiable). This may help some individuals to overly prevent or delay the onset with acquisition of possible coping mechanism.
- d. Governments at all levels should adopt the global action plan for dementia. This include: dementia as a public health priority, dementia awareness and friendliness, dementia risk reduction, dementia diagnosis, treatment, care and support, support for dementia carers, information systems for dementia and dementia research and innovation. This may help to reduce the social and psychological burden on the sufferers

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