

Dementia diagnosis case review

[Health & Medicine](#), [Disease](#)



Rose an 87 year old woman living alone in a rural area tripped and fell hitting her head and injuring her right arm which eventually became paralysed. After this incident, her loss of memory worsened and her dementia became more severe.

Definition and Classification

Dementia is a syndrome of cognitive decline that interferes with the ability to perform basic tasks. Dementia is often mistakenly assumed to be a normal part of aging. (Appendix: 1. 0 Symptoms). ICD 10 classifies dementia under section F00-F03 as being chronic or progressive in nature and includes Arteriosclerotic dementia, Presenile: dementia NOS and psychosis NOS, Senile: dementia NOS (depressed or paranoid type) and psychosis NOS and excludes senile dementia with delirium or acute confusional state and senility NOS.

Challenges of the Disease Diagnosis

Dementia is complex to diagnose as there are several conditions that can mimic symptoms of dementia like head injuries, depression, drug reactions and infections and till date ‘ accurate’ diagnosis is feasible only after death during a brain autopsy. The current diagnosis strategy includes a detailed history through an interview with an informant to determine if the symptoms have been gradual or sudden due to illness or accidents.

National Institute of Aging/Alzheimer’s Association (NIA-AA) and International Working Group (IWG) have found a possibility of detecting Alzheimer’s disease (AD) early through vivo cerebrospinal fluid measures that reflect the presence of the AD pathophysiological process.

Social Determinants and Risk Factors

There are 50 million dementia patients worldwide and it is the 7th leading cause of death. Social factors like the place of residence (type, location and surrounding facilities), lack of education, early institutionalisation and insufficient cognitively stimulating activities in the community impact the rate and percentage of dementia.

Among the controllable risk factors (mental activity, physical activity, social activity, alcohol, diet, blood pressure, body weight, cholesterol, diabetes, smoking), researches have proven that regular exercise influences the other factors too positively and results in better brain function and reduces the risk of cognitive decline. Researches like the Framingham study done over decades using Physical Activity Index (PAI) have shown that physical activity and dementia are inversely proportional, and the following research work done by Group Health Cooperative/University of Washington substantiates this and has shown that regular exercise delays the onset of dementia. 1740 participants were chosen for this study based on their Cognitive Abilities Screening Instrument (CASI) scores in the range of 91 to 100 and were monitored over a period of 10 years – 1185 stayed without dementia, 158 developed dementia, 121 left, and 276 died. This extensive study shows that for participants who exercised 3 or more times per week, the rate of dementia is 13 percent per 1000-years, as compared to the persons who exercised fewer than 3 times per week who has the rate of 19.7 per 1000 person-years. 11 One limitation of this study is that it did not have a gauge of the duration, type or intensity of the exercise and it only encompassed the frequency of exercise. In conclusion, this study has identified a significant

consequential impact between exercise and physical functioning with regards to dementia.

Public Health Initiatives

It has been projected by World Health Organisation (WHO) and Alzheimer's disease International (ADI) that the number of people living with mental ailments will triple by 2050. Hence, public health sectors have strengthened their campaigning strategies and in 2005 Alzheimer's Australia instituted a government funded programme "Mind your Mind" to educate Australians on their role in reducing risk of dementia. This programme emphasizes on increasing brain health and provides tutorial sessions, train the trainer sessions, printed materials, promotions through media and a mobile device app.

"National dementia support program (NDSP)" extends its services through its website, training, helpdesk and counselling. Dementia Behaviour management advisory service targets their services to patients with behavioural symptoms of dementia. As it is equally important to increase the carers' competency, initiatives like Dementia Training program (DTP) and Dementia Education & Training for Carers programs are being promoted and the Australian government has set aside \$268.4 million for dementia related initiatives.

Other professions including public media professionals, educators, researchers, sports professionals, dieticians, web designers and IT professionals play a vital role in disseminating the awareness of dementia. The above "Mind your Mind" initiative encompasses "Brainyapp" an

interactive dementia risk reducing app developed in 2011 by IT professionals and “ Your Brain Matters” launched in 2012 presenting 5 simple steps to brain health. The threatening increase in the rate of dementia predicted until 2050 deems the need for such initiatives to be encouraged and if need be forced for the good of future health.