INDIAN ASSOCIATION OF EPIDEMIOLOGISTS

Epidemiology International
Volume 8, Issue 2 - 2023, Pg. No. 1-3
Peer Reviewed & Open Access Journal

Editorial

Dementia and Alzheimer's Disease: Public Health Perspectives in India

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DOI: https://doi.org/10.24321/2455.7048.202303

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How to cite this article:
Kishore J, Panda M. Dementia and Alzheimer's Ddisease: Public Health Perspectives in India. Epidem Int. 2023;8(2):1-3.

Dementia is usually a disease of older persons characterised by a clinical syndrome of loss of cognitive and emotional abilities that interfere with their activities of daily living. Worldwide, the burden of dementia is going to increase further from around 55 million at present to 78 million in 2030, and to around 139 million in 2050. The most common cause of dementia is Alzheimer's and almost 50 million people are suffering from Alzheimer's worldwide.

The prevalence of dementia in developed countries is already as high as 5% and 10% above 60 and 65 years of age respectively. Though currently, its rate is low in developing countries, it is gradually increasing.[1]

More than 4 million Indians suffer from different types of dementia which is quite low as compared to developed and other developing countries. Out of this burden of dementia, 2 million are contributed by Alzheimer's. The lower prevalence in India could be due to shorter life expectancy or short survival, slow progress of the condition, longer duration of disease, and low age-specific incidence of dementia.

Major risk factors of dementia include greater age, female gender, residence in rural areas, less education, positive family history, Down's syndrome, stroke, head trauma with loss of consciousness, and thyroid disorders. It is also said to be associated with a high intake of alcohol and tobacco use and untreated sleep apnoea. Males are more active in their old age and less prone to suffer from dementia because of the lesser female workforce (23.4%) as compared to male workers (76.7%) according to the Census of India, 2011.[2] Similarly, the urban population had less prevalence of dementia as compared to the rural population which could be attributed to a greater proportion of occupationally engaged males, availability of health facilities, and facilities of health insurance and pension benefits in the urban areas.[3]

Some protective factors of dementia include higher education, the presence of the APOE2 gene, intake of antioxidant substances, use of anti-inflammatory drugs, and estrogenic supplements in women. These factors also explained the rural-urban difference.

Alzheimer's is a form of dementia in which a person loses cognitive functioning, thinking, remembering, and reasoning - to such an extent that it interferes with daily life activities. Due to cognitive and emotional disabilities, such persons are unable to take care of themselves and seek help from others and as the disease progresses to severe disability, constant support is required.

Interestingly, the disease was discovered in a 50-year-old German lady by Alois Alzheimer, a German psychiatrist in 1901, and hence the disease was named after him. As the prevalence of the disease increased, people felt the need to establish an organisation dedicated to the fight against this illness and thereafter, Alzheimer's Disease International was established in 1984.

Out of 4 million dementia patients in India, less than 2 million have Alzheimer's. As these people are heavily dependent on family members or on their caretakers, it is estimated that 20-30 million family members are directly affected if they have one elderly person suffering from Alzheimer's in their family. It poses to be a burden to public health as there is no cure and constant support and care are required from their family members and community. As the elderly are suffering from other non-communicable diseases like hypertension, diabetes, angina, thyroid disorders, and other mental disorders, the presence of Alzheimer's further complicates their living conditions.

The incidence rate of Alzheimer's per 1000 person-years was 11.67 for those aged ≥ 55 years and 15.54 per 1000 person-years for those aged ≥ 65 years. When these rates were standardised for ages ≥ 65 years, then the incidence rate was 21.61 per 100,000 as reported in a study conducted in Kerala by Mathuranath et al.[4]

A meta-analysis was carried out by Chaudhary et al. that included 20 epidemiological studies covering more than 86,000 elderly populations.[5] It reported that the prevalence of dementia was higher in elderly aged 75 years and above (80 per 1000 elderly) as compared to those who were below 75 years (20 per 1000 elderly population).

However, the literature on risk factors and protective factors of dementia and Alzheimer's is still poor in India. There are very few centres in the country that can treat such cases and rehabilitative facilities are scarce. For the welfare of the elderly population, there are a few initiatives taken by the Indian government, like, 1. National Program for Health Care of the Elderly (NPHCE)[6] launched in 2010 under the obligation of the UN Convention on the Rights of Persons with Disabilities (UNCRPD), 2. National Policy on Older Persons (NPOP) adopted in 1999, and 3. The Maintenance and Welfare of Parents and Senior Citizens Act, 2007. However, the status of the elderly remained poor. Poor resource allocation limits the expansion of these services. Similarly, strong coordination of the National Adolescent Health Program with the National Program for Healthcare of the Elderly is required. During the delivery of life skill education sessions, elderly care may be included along with communication, empathy, and critical thinking skills. A strong bond needs to be developed between the elderly and adolescents. All elderly should provide mentorship to adolescents which will help each other.

Preventive intervention on risk factors of dementia is a much more effective strategy than investment in its treatment or rehabilitation. In a study published in Lancet[7] it was found that 40% reduction in dementia is possible if the following risk factors are eliminated: in early life – less education (7%); middle life – hearing loss (8%), traffic brain injury (3%), hypertension (2%), alcohol (1%), obesity (1%); and later life – smoking (5%), depression (4%), social isolation (4%), physical inactivity (2%), air pollution (2%), and diabetes (1%). Such risk factors reduction through a life cycle approach of preventive measures is multi-fold beneficial because other fatal diseases such as cardiovascular diseases, strokes, diabetes, obesity, hypertension and cancers will also go down.

A lack of awareness about preventive measures, early detection, diagnosis, counseling, treatment and rehabilitation services among health professionals should be removed at the earliest to decrease the burden of dementia and Alzheimer's disease in the community. In a resource constraint setting a focus should be given on preventive.

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ISSN: 2455-7048
DOI: https://doi.org/10.24321/2455.7048.202303