Elderly depression in India: An emerging public health challenge

Manju Pilania,1 Mohan Bairwa,2 Neelam Kumar,1 Pardeep Khanna,1 Hitesh Kurana3

1. Department of Community Medicine, Pt B D Sharma PGIMS, Rohtak, Haryana, India
2. Centre for Community Medicine, All India Institute of Medical Sciences, New Delhi, India
3. Department of Psychiatry, Pt B D Sharma PGIMS, Rohtak, Haryana, India

According to the WHO Global Burden of Disease report 2004, depression was the leading cause of burden of disease during 2000-2002, ranked as third worldwide.7 It is projected to reach second place of the DALYs (disability adjusted life years) ranking worldwide by the year 2020 and first place by 2030.4 According to a WHO report, patients over 55 years with depression have a four times higher death rate than those without depression, mostly due to heart disease or stroke.1 The contribution of depressive disorders to suicide are widely recognised.8 The Chennai Urban Rural Epidemiology study (CURES) showed the prevalence of depression among population over 20 years as 15.1%.9 Studies in primary care settings point to a higher prevalence of depressive disorders amongst the elderly (with chronic co-morbid diseases), ranging from 10 to 25%.10 A meta-analysis of 74 studies, including 487,275 elderly individuals found the worldwide prevalence rate of depressive disorders to be between 4.7 to 16%. This study indicates a comparatively higher prevalence of geriatric depression in India (21.9%).11

Factors contributing to depression in the elderly population

Populations are undergoing continuous demographic and epidemiological transition across the world. In addition, a population explosion in the developing countries is contributing to the population growth. A transition towards an older society that took over a century in Europe is taking place now in less than 25 years in countries like Brazil, China and Thailand.12 These factors together lead to an increase in the number of elderly individuals which will ultimately lead to a rise in the absolute number of elderly persons with depression in developing countries.

In the past century, there has been a dramatic increase in life expectancy. The world’s geriatric population will soon be greater than children. From 2000 to 2050, the proportion of the world’s elderly population is predicted to double from ~11 to 22% and the absolute population increase is expected to be from 605 million to 2000 million. Of this, 80% people will be living in low- and middle-income countries.13,14
In India, life expectancy has increased from 45 years in 1970 to 65 years in 2010. On account of better education, health facilities and increase in life expectancy, the percentage of the geriatric population has gone up from 5.3% in 1971 to 7.5% in 2010. Although the proportion of people 60 years and above is smaller than that in the developed world, by 2020, the absolute number of older adults is likely to be higher in India. An increasing geriatric population is associated with rising prevalence of chronic non-communicable diseases; therefore, the magnitude of depression is also expected to grow.

Societal modernisation has brought in its wake a breakdown in family values and the framework of family support. With ongoing economic development, children are moving to urban areas, sometimes leaving their parents alone at home. If the parents move with their children, they are sometimes unable to adjust to the new environment. The change in the family structure along with economic insecurity results in the elderly losing their relevance and significance in their own house and increasing feelings of loneliness. This has a detrimental influence on the psychological health of the elderly.

In modern society, enforced retirement may act to marginalise older people. The elderly are viewed as less energetic and less valuable by potential employers. This attitude serves as a social divide between the young and old and can prevent older men and women from fully participating in social, political, economic, cultural, spiritual, civic and other activities.

All these factors make the elderly more prone to psychological problems. Even though depression is the commonest psychiatric disorder in the elderly, it is often misdiagnosed and under-treated. Perhaps due to the misconception that depression is part of ageing, rather than a treatable condition. In the absence of treatment, there will be significant clinical and social implications in the lives of the elderly, as depression has a tendency to be chronic or recurrent.

Social impact of depression
Depression decreases an individual's quality of life and increases dependence on others. People with depression suffer from impairment of all major areas of functioning, for instance, personal care, family responsibilities, and social-occupational capabilities. Elderly people tend to be less healthy physically, and are more socially withdrawn. They are less satisfied with the manner in which they handle their problems and social life. People with depression suffer overly from various medical disorders and die prematurely. Geriatric populations with depression are at a higher risk for chronic diseases like coronary heart disease (CHD), cancer, diabetes mellitus and hypertension. These people use medical services more often, thus raising the cost of medical services to the community at large.

There is an increasing number of older people with limited mobility and need of long-term care. These factors increase the elderly person's dependency and make them vulnerable to maltreatment in various forms like deprivation of dignity and insufficient care etc. Elderly patients often need long-term institutional care but such services are scant in India. Therefore, the demand of mental health care services including that for institutional care is increasing in developing countries along with the health services required for care of the elderly population.

Depression in the awareness days of year 2012
WHO set “depression” as the theme for the World Mental Health Day held on 10 October 2012 in order to address the rising magnitude and preparedness for the problem. It was intended to create awareness in the public that depression can affect anyone and that it is a treatable condition. People should be alert to the early signs of depressive disorders as it impacts not only the individuals but also their families and peers.

“Good health adds life to years” was the theme for the World Health Day, 7 April 2012. The theme also addresses the health problems of geriatric populations. The Director General, WHO stressed the need to respect older people as a rich source of wisdom and experience, as an asset to society, not a burden, and as models for the 'new normal'. There is a need to reorient the health systems and medical education to meet the challenges of elderly health problems.

Government and geriatric health
The government of India launched the “National Mental Health Programme (NMHP)” in 1982, emphasising the needs of the elderly, affected by Alzheimer's and other dementias, Parkinson’s disease, depression and psycho-geriatric disorders. The NMHP failed to achieve any of its targets over the subsequent decades because it was started using the Bellary Model. The Bellary Model was validated in a backward district of Karnataka, but seemed to work under resource-intensive experimental conditions over a limited time-frame. However, it failed to deliver in real-life field conditions because policy makers’ priority was to cope with issues, such as high maternal and child mortality, under-nutrition, unsafe drinking water and a primordial healthcare system. Thus, mental health took a back seat and did not even merit mention in the national five-year plans till 1996-97, when a token provision of 270
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million (US$ 5.1million) was made in the Ninth Five-Year Plan (1997-2002) for piloting the District Mental Health Programme (DMHP) in 25 of 593 districts. Even this meagre amount remained unspent due to bureaucratic apathy and tardy implementation.\textsuperscript{25}

The district mental health programme (DMHP) was designed to decentralise mental health care in the community by using the public health infrastructure and other resources.\textsuperscript{25} But, the approach did not take into account the poor functioning of the primary health centres in general, shortage of professional manpower, poor morale of the health workers, lack of enthusiasm in the professionals, and lack of an administrative structure to monitor the progress of the programme in a decentralized manner.\textsuperscript{25} Till the end of the 11\textsuperscript{th} Five Year Plan (2007-12) the programme has been implemented in only 20\% of districts (123) of the country. After the years, Government of India decided to increase the budget on mental health threefold in 12\textsuperscript{th} Five Year Plan (2012-17). It is anticipated to cover all 640 districts by the end of the plan period.\textsuperscript{26,27}

The importance of health care of the elderly was officially emphasised in the policies of Government of India in 1999 by adopting the national commitments under the UN Convention on the Rights of Persons with Disabilities (UNCRPD), National Policy on Older Persons (NPOP). The Maintenance and Welfare of Parents and Senior Citizens Act, 2007 also deals with provisions for medical care of senior citizens along with other facilities. The National Programme for the Health Care for the Elderly (NPHCE) launched in 2011, which is an articulated version of earlier act of 2007, UNCRPD and NPOP (vide supra). Through this programme the government aims to provide basic health care to the elderly and improve their quality of life by collaborating with health care services, social welfare schemes and rural health development-oriented schemes. Thus this programme makes easy access to preventive, curative and rehabilitative services through a community-based primary health care approach.\textsuperscript{28} Recognising the importance of mental health, India announced it as an important NCD at the First Global Ministerial Conference on Healthy Lifestyles and Non-Communicable Disease Control held in Moscow in April 2012.\textsuperscript{29}

How to fight depression in the later years of life?
The goals in treating depression in elderly persons include resolution of symptoms, prevention of relapse and recurrence, and improvement of functional capacity. Because elderly persons with depression often overuse health services before their illness is recognised; early recognition and timely treatment becomes a necessary element of the management of depression. Treatment depends on severity and duration of symptoms, chances of relapse, and associated co-morbidities. For sub-threshold symptoms and mild to moderate depression, psychological interventions including cognitive behaviour therapy, interpersonal therapy should be preferred. Antidepressant drugs need to be considered if symptoms are moderate to severe and/or high intensity psychological interventions are not effective. Elderly persons are more prone to side effects of antidepressant drugs even at lower doses; a careful monitoring and motivation is often needed while treating these patients with antidepressants.\textsuperscript{30} Antidepressant drugs include four groups of drugs: Tricyclic Antidepressants (TCA), Selective Serotonin Reuptake Inhibitors (SSRI), Serotonin and Norepinephrine Reuptake Inhibitors and Dopamine Norepinephrine Reuptake Inhibitors. SSRIs are the most commonly used drugs nowadays with lesser side effect profile. Though SSRIs have been relatively expensive compared to the older tricyclic antidepressants, cheaper generic alternatives are now becoming available.\textsuperscript{31} Electroconvulsive therapy is particularly useful where depression is life threatening or in response to multiple drug therapy and psychological interventions is inadequate.\textsuperscript{30} In addition, regular counselling, guided self-help, physical exercise programs, management of sleep patterns, relaxation techniques and vitamin B based supplements should be considered throughout the course of disease.

Considering the 77\% average national deficit of psychiatrists ranging from approximately 25\% in Kerala to more than 90\% in nine states, our long-term goal should be to train the MBBS students in the fundamentals of psychiatry.\textsuperscript{32} Training of non-psychiatrist physicians and general practitioners is required to identify depressive symptoms in general patients as a short-term measure.

Governments in developing countries such as India should attempt to change the negative perception the community holds towards mental disorders by giving priority to public education as many aspects of mental health care require active collaboration with the community. It is time to start the process of de-stigmatisation of mental health disorders.

In addition, supply of effective and affordable drugs in primary health facilities, recognising and addressing the inequities in health, maximising scarce public resources, regular training programmes for primary care providers, research on preventive and promotional aspects of mental health, and sufficient fund allocation should be the priority areas for tackling depression in the elderly.
Aggressive education and awareness campaigns to fight depression at individual, community and the national level and support to patients should be an essential component of future strategies. The burden of depression among the geriatric population of developing countries needs to be addressed as a priority, before it becomes a public health menace.

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**CONFLICTS OF INTEREST**

The authors declare that they have no competing interests.