REVIEW ARTICLE

Health Status of Elderly in India-The Path Ahead

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Abstract

Health of the ageing individuals has become a rising concern, particularly due to unpreparedness, unresponsiveness and lack of negligence to this specific population group and ignored status of geriatrics in India. The **objectives** of the present study are (1) To explore the demographic structure of the Indian elderly population, (2) To reflect on the factors responsible for health problems and deaths among the Indian elderly, and (3) To critically evaluate the situation of health expenditure in India. The article is based on analysis of secondary data from World Health Organization (W.H.O), Ministry of Statistics and Programme Implementation, and Ministry of Home Affairs, the Government of India. The data has been analyzed and presented thematically in order of the objectives listed. The authors propose pragmatic, operational and contextually significant key recommendations for the improvement and enhancement of health status of elderly persons in India

Key Words

Elderly; Demography; Health; Geriatrics

Introduction

India is likely to witness the sharp uprising of grey population, a situation for which the health infrastructure, research and development sectors and changing psycho-social fabric of the country is less prepared to cater and contribute in their most effective and efficient ways. Steep rise in the population of this group has raised specific health concerns. Are we prepared to provide the ageing population with sufficient hearing aids, knee replacements, wheel chairs, limb support aids, dental care and everyday health equipment's for their longevity and improved quality of life, in the coming decades?

Necessity of geriatric wards and OPD's for elderly have been highlighted, with strong recommendation thrusting on involving a multi-disciplinary team, involving experts from fields such as medical, paramedical and social sciences (1). Also, public provisions ensuring health of the elderly in India is reportedly less (2). Moreover, risk factors have been found most among elderly women whereas in gender totality many have been observed under-weight and hypertensive (3). Health conditions of elderly in rural areas have also been explored. Empirical attempts have revealed morbidity among rural elderly such as depression, musculoskeletal and locomotive disorders, respiratory disorders, hypertension, gastrointestinal problems, diabetes mellitus, visual impairments, neurological concerns, arthritis, asthma, cataract and anemia (4,5,6,7).

Contemporary psycho-social situational analysis of India reveals changing social fabric, disintegration of joint family structure and empty nest syndrome among the elderly pose; which serious questions with regards to the contribution of social support

towards maintenance of their health and well-being. Relevance of social support in the maintenance and enhancement of health, particularly positive subjective assessment as key component of psychological well-being, of the elderly has been indicated (8). Social support networks of the elderly comprising, spouse, children, siblings and friends, have also been explored (9) and it has been indicated previously that elderly in close contact (with relatives, friends and neighbors) report lesser deteriorated health conditions (10).

Constraints in obtaining uninterrupted, unbiased and equality based affordable health services in the Indian context have been highlighted by researchers. Such barriers are inclusive of several factors including restrictions imposed by limited income/earning capacity, employment benefits, asset availability and ownership and restricted scope in expansiveness of health protection and expenditure (11). However, on a positive note, the Government of India, under the leadership of Prime Minister Shri Narendra Modi, is prepared to put forward a new healthcare scheme for the elderly as has been realized that health of the senior citizens has remained an undervalued and under evaluated concept.

Aims & Objectives

1. To explore the demographic structure of the Indian elderly population,
2. To reflect on the factors responsible for health problems and deaths among the Indian elderly,
3. To critically evaluate the situation of health expenditure in India.

Material and Methods

The present article is based on an intensive review of literature and secondary data derived from the World Health Organization and Government of India reports. Inclusion criteria were followed by the authors during review. Selected literature, data materials and published research in the area of gerontology and health were considered, not more than ten years old in record.

Results and Discussion

Authors aimed to explore the demographic structure of the Indian elderly population and reflect on the factors responsible for health problems and deaths among the Indian elderly. Moreover, a critical evaluation of the situation of health expenditure in India was pursued and in the last section we have provided key recommendations for the improvement and enhancement of health status of elderly persons in India.

Demographic Profile of India's Elderly Population: Between 2001 and 2011, projected estimates reveal about 2% increase in the percentage composition of elderly persons aged 60 years and above whereas by 2026, it is projected to reach 12.4 % (12).

Figure 1 provides an overview of percentage distribution of population by age groups in India. Significant features are highlighted, reflecting critical trends in the overall behavior of population change in the demographic profile of the three groups. An analysis of the sub-section of three decades between 1981 and 2011 reveals dramatic fall in the population of children below 14 years of age and conversely a significant increase in the population of other two groups, i.e., adult population and the elderly. As a sequel, the elderly people will be required to incur greater expenses and bear more social and psychological burden as well. Hence, it is imperative to ponder over the resource availability, access and mobilization, with specific reference to the needs of the elderly which over the years have gained tremendous diversity on account of inter-cultural transactions, changing fabric of Indian family structure and technological advancements.

Table 1 reveals critical changes in the nature and behavior of life expectancy across India, South East Asia and Region of the Americas. In India, the life expectancy at birth was 58 years in 1990, which has increased to 66 years in 2012, reflecting significant age enhancement during the period. This change can be attributed to tremendous improvement in health service delivery mobilization, rise in awareness among the elderly and child health issues, initiation of geriatric care centres/units in hospitals and specific initiatives undertaken by the Government of India and State Governments from time to time. The table also illustrates the movement of life expectancy in years at the time of birth and 60 years of age in both the gender groups across India, South East Asia WHO region and WHO region of the Americas. However, India has a long way in attaining proximity in life expectancy with more developed regions of the Americas in both the gender groups, including life expectancy calculated at the time of birth and at 60 years.

The former categorization of life expectancy (life expectancy at birth) indicates the status of maternal health, success of healthcare delivery systems,

nutritional status of expecting mothers and availability of trained medical professionals. However, the later component of life expectancy, calculated at the onset of 60 years of age, is a more matured reflection of state of geriatric care services, effectiveness of referral systems, initiation of telemedicine and telecommunications in health sector with specific focus on the geriatric problems and functional social support offered by immediate family members, same age peers, voluntary help groups and community support. It is significant to note that the status of healthcare system catering to medical needs of ageing women in India is better and more effective than that in other countries in South East Asia WHO region. Nevertheless, India needs to struggle with severe bottleneck to achieve expected years at birth and 60 years in competition with the world's most developed WHO regions.

Health Concerns and Deaths among the Elderly: Insights into the Indian Reality

The report, "Mortality and Burden of Disease Estimates for WHO Member States in 2008", WHO (13) provides a glimpse into the reality pertaining to the causes of deaths affecting older persons aged 60 years and above in India. Insights from the report suggest significantly high number of deaths among the elderly reported on account of falls. This calls for serious attention from immediate family members, trained medical professional such as orthopedicians and geriatricians and rehabilitation experts. A close monitoring of house arrangements and structure needs to be undertaken to ensure their safe physical mobility (example walking, sitting and climbing stairs). Physical vulnerability coupled with diminishing psycho-motor control over muscles and limbs in old age requires infrastructural assistance. Unfortunately, as revealed by the report, high number of intentional injuries among the elderly is self-inflicted in nature, responsible for death.

The Figure 2 illustrates the top ten causes of death in India for the ages 25-69 years. The figure reflects noteworthy trends in the occurrence of fatal health diseases among males and females, revealing striking gender differences in the overall picture. The prevalence of deaths among adult males is 3.8% potentially higher resulting from cardiovascular diseases and 3.1% more as a consequence for tuberculosis, when compared to their female counterparts. Further, it is pertinent to note that intentional self-harm is additionally responsible for deaths. This finding is consistent with another report revealing shocking data on causes of deaths among older persons, indicating high mortality as a consequence of self-inflicted injury (13).

Health Expenditure in India- Are we prepared?

The National Health Policy of 2002 highlighted the necessity for the establishment of geriatric care for the ageing population on account of improved life expectancy by emphasizing medical investigation of disorders of old age. The recent National Health Policy 2015 draft released by the Ministry of Health and Family Welfare, addresses growing concerns of this vulnerable section of the population by suggesting mechanisms involving community centered efforts in partnership with strong social support from family and caregivers. Moreover, it also envisages the incorporation of palliative care initiatives and recommends subsidizing or providing completely free medications and diagnosis facilities in geriatric centers and for older patients requiring medical attention.

Table 2 elucidates the health expenditure in percentage of the GDP of respective WHO regional groups, divided into two main categories of South East Asian countries (including India) and Region of the Americas (data presented only from the United States) from the World Bank, World Health Organization Global Health Expenditure database repository.

After a stagnant growth in the rate of health expenditure, during a period of fourteen years (1995-2004), India reflected an improvement post the year 2010 into 2014. For more than a decade, the country struggled with the crippled and unchanged perspective on healthcare. This not only affected the health care industry, but the long ignored value of health has left India standing behind many other member countries in the WHO South East Asian region. The country now needs to demonstrate considerable working efficiency and expansiveness in terms of health expenditure when contrasted with Nepal, Thailand and Maldives. This becomes all the more necessary when India is evaluated against the world most developed economy, United States, indicating a four time greater expenditure on health as percentage of their GDP.

Conclusion

The need for development of geriatrics and sensitization towards the psycho-social needs of the elderly needs to be raised among the government, health care providers and individual citizens. India

has to create better health systems management for the elderly and work continuously in creating database to track and predict demographic changes in the population pyramid.

Recommendation

The article aims to offer recommendations with the objective of improving the overall health of elderly living in India. Individual support structures cannot operate in isolation and are required to function in collaboration and cohesion with each other. For an ageing individual, retirement from active employment and death of spouse are not only critically stressful events but also demand social support system and involvement and participation of children, grandchildren, same age peers and family networks. Hence, psychologists, social workers, medical professional and rehabilitation experts will be required to effectively collaborate with the family members of the elderly with the objective of improving their mental health, emotional well-being and subjective assessment in terms of positive subjective experiences.

Improvement in interface with technology requires systematic efforts. A technologically updated and well acquainted elderly can overcome issues emanating from empty nest syndrome. In the absence of children support, elderly can seek assistance from technology in undergoing medical advice from a doctor located at a geographical distance. Moreover, they can use mobile phones (android applications), webcams, social networking and internet in communicating instantly with others in times of medical crisis. Health care industry is in severe dearth of revolutions in geron-technology while we strongly recommend constant upgradations in the field of geriatrics. The health departments are urged to maintain a secure database, both longitudinal and cross sectional in nature, in an attempt to predict and control the occurrence of disease, illness and new age health problems among the vulnerable group.

Relevance of the study

The present study provides an intensive overview of health status of the elderly in India. Further, it provides a comparative analysis of India with the specific regions of the world in terms of life expectancy. Moreover, salient features of Indian population with reference to age distribution and causes of death have been discussed in the light of health expenditure in India. Also, the authors have offered recommendations, towards the objective of enhancing the health condition of the elderly in India.

Authors Contribution

Both the authors have jointly contributed to the conceptualization, design, review, analysis and interpretation, suggesting key recommendations along with drafting and revision of the article.

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Tables

TABLE 1 LIFE EXPECTANCY AT BIRTH AND AT AGE 60 YEARS FOR INDIA, SOUTH EAST ASIA AND REGION OF THE AMERICAS

Life Expectancy	India		South East Asia		Region of the Americas	
1. Life Expectancy at Birth (both sexes)	58 (1990)	66 (2012)	59 (1990)	67 (2012)	71 (1990)	76 (2012)
1.a. Males	57 (1990)	64 (2012)	58 (1990)	66 (2012)	68 (1990)	74 (2012)
1.b. Females	58 (1990)	68 (2012)	60 (1990)	69 (2012)	75 (1990)	79 (2012)
2. Life Expectancy at age of 60 years (both sexes)	15 (1990)	17 (2012)	16 (1990)	17 (2012)	20 (1990)	22 (2012)
2.a. Males	14 (1990)	16 (2012)	15 (1990)	16 (2012)	18 (1990)	21 (2012)
2.b. Females	16 (1990)	18 (2012)	16 (1990)	18 (2012)	22 (1990)	24 (2012)

Source: Adapted from World Health Statistics, 2014, WHO, WHO Press, Geneva Accessed at http://apps.who.int/iris/bitstream/10665/112738/1/9789240692671_eng.pdf
Note: The report provides regional and income groupings into the following country classification:
1. *WHO South East Asia Region: Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste**
2. *WHO Region of the Americas: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, United States of America, Uruguay, Venezuela (Bolivarian Republic of)*

**may have data for periods prior to their official membership of WHO*

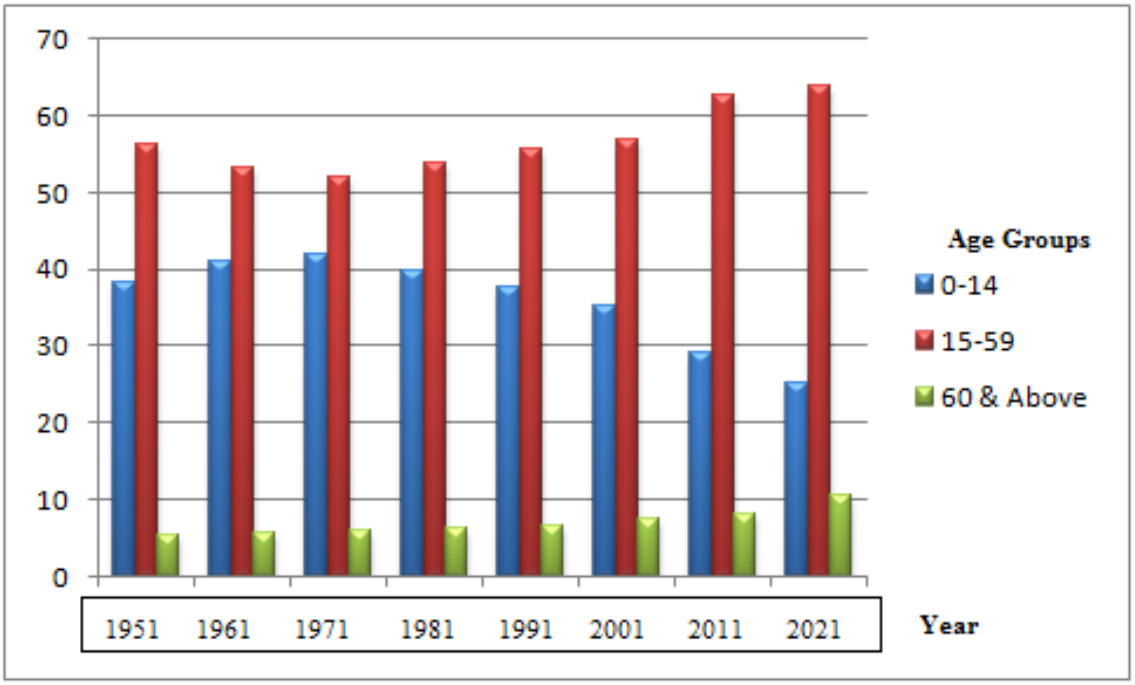
TABLE 2WORLD HEALTH ORGANIZATION GLOBAL HEALTH EXPENDITURE TOTAL (AS % OF GDP)

Countries in WHO Regional Groups	1995-1999	2000-2004	2005-2009	2010-2014
WHO South East Asian Countries				
1. India	3.8	3.8	3.8	4.0
2. Bangladesh	3.5	3.6	3.5	3.7
3. Bhutan	5.2	4.8	3.6	3.6
4. Nepal	5.9	6.1	5.5	6.0
5. Indonesia	2.9	2.9	3.0	3.1
6. Sri Lanka	3.4	3.3	3.1	3.2
7. Thailand	3.8	4.1	4.5	4.6
8. Myanmar	1.9	1.8	1.8	1.8
9. Maldives	5.8	8.1	11.4	10.8
10. Timor-Leste*	.9	.7	1.4	1.3
WHO Region of the Americas				
United States	17.1	17.1	17.0	17.1

Source: Adapted from The World Bank, World Health Organization Global Health Expenditure database, accessed from http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS
**may have data for periods prior to their official membership of WHO*

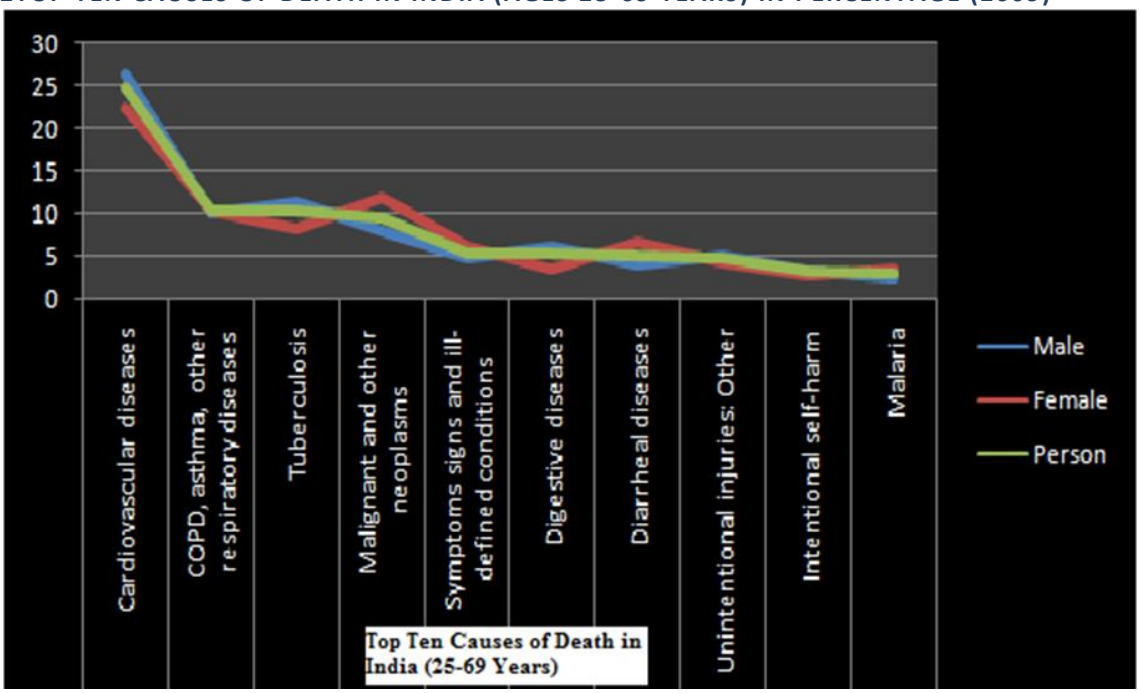
Figures

FIGURE 1PERCENTAGE DISTRIBUTION OF POPULATION BY AGE GROUPS IN INDIA



Source: Developed from Population Census data for the period 1951-2001, in Situational Analysis of the Elderly in India, June 2011, Central Statistics Office, Ministry of Statistics & Programme Implementation, Government of India.
Note: Data for the years 2011 and 2021 are projected figures

FIGURE 2TOP TEN CAUSES OF DEATH IN INDIA (AGES 25-69 YEARS) IN PERCENTAGE (2009)



Source: Developed from Government of India, Office of the Registrar General, Ministry of Home Affairs, Report on Causes of Death in India (2001-2003), 2009