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Review Article

Current Issues in Geriatric Health Care in India-A Review

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Abstract

Background: This article aims to highlight the medical problems that are being faced by the elderly people in India and strategies for bringing about an improvement in their quality of life.

Methodology: A web and manual based literature survey was conducted to assess the amount of information available on geriatric health issues in India. The databases searched include Google Scholar, PubMed, Scopus, and Web of Science, the search terms were "Geriatrics", "Elderly" , "Indian Health care system", "Health Issues of Elderly" without narrowing or limiting search elements. Publications only with abstracts/full articles and books were reviewed in the search.

Interpretation and Conclusion: The literature reviewed adequately answers the "what" and the "why" of aging and poor geriatric care in India, but more research is needed to understand "how" to instigate improvements. On the basis of our analysis of pertinent literature we propose that Health care services be based on the felt needs of the elderly population. Since 71% of the elderly reside in rural areas, it is mandatory that geriatric health care services be made a part of the primary health care services. This in turn calls for specialised training to all the functionaries of healthcare delivery system of the country. The AYUSH system notably strong in areas of health promotion and disease prevention can be specially leveraged for realising the ultimate goal of healthy ageing in India.

Keywords: Geriatrics; Elderly; Health; India; AYUSH

Introduction

The boundary of old age cannot be defined because it does not have the same meaning in all societies. People can be considered old because of certain changes in their activities or social roles. Government of India adopted 'National Policy on Older Persons' in January, 1999 which defines 'senior citizen' or 'elderly' as a person who is of age 60 years or above [1]. Most definitions of aging indicate that it is a progressive process associated with declines in structure and function, impaired maintenance and repair systems, increased susceptibility to disease and death, and reduced reproductive capacity [2]. Geriatric care has attracted unprecedented attention and rightly so as the world is witnessing the phenomenon of global ageing. Geriatrics simply refers to the medical care of the elderly people. Gerontology on the other hand refers to the "study of physical and psychological changes which are incident to old age". Experimental gerontology is concerned with research into the basic biological problems of ageing, into its physiology, biochemistry, pathology and psychology [3]. Clinical gerontology is concerned with research which characterizes physiological changes across human lifespan that influence the risk of age related conditions [4]. Ageing populations have brought with them a myriad of socio-economic and medical problems, tackling which has become a major concern of governments all around the world. As a result of dramatic demographic, social, and economic shifts, India's growing elderly population needs quality medical and social care. However, current literature suggests that unsupportive attitudes and limited awareness, lack of knowledge and non-acceptance of geriatrics as an established discipline result in inaccessible and poor quality care for India's old.

Demography of the elderly

The elderly population (aged 60 years or above) in India accounted for 7.4% of the total population in 2001, 8.6% (104 million; 53 million females and 51 million males) in 2011 and has been projected to increase to 19% by the year 2050 [1,5,6]. Globally, demographers predict that it will take only another 25-30 years for the 65 years and older age group to reach double the number of children under 5 years of age. This means that future populations might require more geriatricians than pediatricians. Preparations therefore need to begin decades in advance [7]. Projections indicate that in 2050 the 'oldest old' - those aged 80 years and on whom the burden of morbidity and dependency is highest, growing faster than ever, will number 434 million, having more than tripled in number since 2015 [5].

According to statistics related to elderly people in India, in the year 2011, it was observed that as many as 71% of elderly persons were living in rural areas. In rural areas, 66% of elderly men and 28% of elderly women were working, while in urban areas only 46% of elderly men and about 11% of elderly women were working. Although the literacy rates among the elderly have shown an uptrend, the old-age dependency ratio has climbed from 10.9% in 1961 to 14.2% in 2011 for India as a whole. State-wise data on economic independence tells us that in rural areas, the proportion of elderly males who are fully dependent on others is highest in Kerala (43%) and is lowest in Jammu & Kashmir (21%) [1].

Illness profile of the elderly

In India, the elderly people suffer from dual medical problems, i.e. both communicable as well as non-communicable diseases. It is

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estimated that one out of two elderly in India suffers from at least one chronic disease which requires life-long medication. This is further compounded by impairment of special sensory functions like vision and hearing. A decline in immunity as well as age-related physiologic changes leads to an increased burden of communicable diseases in the elderly. The prevalence of Tuberculosis (TB) is higher among the elderly than younger individuals [8]. According to the Government of India statistics, cardiovascular disorders account for one third of elderly mortality. Respiratory disorders account for 10% mortality while infections including TB account for another 10%. Neoplasm accounts for 6% and accidents, poisoning and violence constitute less than 4% of elderly mortality with more or less similar rates for nutritional, metabolic, Gastrointestinal (GI) and genitourinary infections [8]. As per 2011 census, most common disabilities among the aged were locomotor and visual; almost half of the elderly disabled population was reported to be suffering from these two types of disabilities [1]. A report published by the Indian Council of Medical Research (ICMR) earlier on morbidity profiles among the elderly in our country found out that hearing impairment was the most common morbidity followed by visual impairment [9]. Another study conducted in the rural area of Tamil Nadu found that pain in the joints and joint stiffness was the most common morbidity which was found in 43.4% of the study participants, followed by dental and chewing complaints in 42%, decreased visual acuity due to cataract and refractive errors in 57% and hearing impairment in 15.4%. Other morbidities were hypertension in 14%, diarrhea in 12%, chronic cough in 12%, skin diseases in 12%, heart illness in 9%, diabetes in 8.1%, asthma in 6% and urinary complaints in 5.6% [10].

A cross sectional study conducted in the rural area of Karnataka found that 33.9% of the geriatric population in the selected province was above the threshold for mental illness based on the General Health Questionnaire-12 (GHQ-12). The most common psychiatric disorder was depression (21.9%) and generalized anxiety was present in 10.7% of the study population. Prevalence of cognitive impairment was 16.3%, with a significantly higher percentage of affected individuals in the 80+ age group [11]. Morbidity being a function of the socio economic conditions of a given population varies widely in different parts within the country, which is why different studies conducted in different parts of the country are bound to yield non-uniform results.

How elderly differ from adults?

The effect of age changes, impaired immunological function, poor nutrition, multiple pathology, sensory deficits, psychiatric disorders and inter-current drug treatment interact both to modify and mask a disease process in the elderly [12]. Apart from several changes at the cellular level like decreased neurotransmitters in the brain stem or at the organ system level like attainment of menopause which predisposes the elderly to several conditions, there is also marked decrease in physiological reserve capacity. Both the lung function and the renal function of an elderly may decrease to 50% of an adult. The decrease may not hinder day to day activities but can seriously affect the ability to recover from an extreme illness that exhausts body's reserve capacity [13]. The biggest hurdle to a physician attending a geriatric patient is existence of co-morbidities which refers to presence of two or more diseases in one individual. These multi-morbidities more than often interact with each other to lead to non-specific symptoms, correction of which require thorough assessment. Single system disease even if present might manifest atypically. Formulating a treatment plan also becomes painstaking especially against the background that most drugs act more potently in the elderly thus increasing the risk of adverse drug reactions and interactions. This is compounded by rapid deterioration, if the dominant disease remains untreated and rapid progression to complications. All these changes take lesser time to occur and a much longer time to reverse. Efficient health care to the elderly is, therefore, possible only by comprehensive and multidisciplinary approach.

Challenges to geriatric healthcare and the way forward

Geriatrics is relatively a new branch in India with most practicing physicians having limited knowledge of the clinical and functional implications of aging. India's old, their caregivers and healthcare providers recognise ill-health as part of old age. In fact, healthcare providers often view elderly patients in a "negative and mechanistic fashion". Condemnatory attitudes, limited awareness and knowledge with non-acceptance of geriatrics as a legitimate discipline has manifested in inaccessible or poor quality care [14].

The main issue in geriatric care is not merely concerned with the physiological phenomenon which is inevitable, but also with the medical health problems and diseases specifically afflicting an individual in old age warranting medical management in order to sustain comfortable and healthy aging. Thus geriatric care has to address two-fold problems- first, basic health promotion to retard the rate of physiological aging and second medical management of diseases and disorders incident to old age. It has been reported that a geriatric individual takes an average of six prescription drugs concurrently and often suffers from adverse drug reactions [14]. Most frequently used medications- antidiabetics, oral anticoagulants and antiplatelets are major predecessors of Adverse Drug Reactions (ADRs). Safer use of these drugs can be promoted by continuous monitoring, frequent review for drug interactions and appropriate education to the patient. Envisaging least number of drugs, routine review of possible drug toxicity, concomitant medications and diseases to evaluate possible interaction with new drugs, helps in ensuring maximum benefit and minimum harm to geriatric individuals. Weighing the risk-benefit profile helps the health provider in prudent addition or deletion of medications to patient's existing therapy. Patient and caregivers should be well educated about the appropriate dose regimen including necessary details on side effects of the medications prescribed, along with methods for prevention, identification, management and action to be taken in case of developing the same [15].

Geriatric pharmacotherapy needs to be included as a component of undergraduate and postgraduate education in medicine as well as in other disciplines like nursing and pharmacy. Appropriate training is essential not only to ensure understanding of pharmacotherapy for older patients based on pharmacokinetics and pharmacodynamics, but also to minimize the ADRs [15].

Health care services should be based on the felt needs of the elderly population. This would involve a comprehensive baseline morbidity survey and functional assessment in health areas that are perceived to be important to them. This should be transformed into a community database that would help to prioritize interventions and allocate funds accordingly. Since 71% of the elderly reside in rural areas, it is mandatory that geriatric health care services be made a

part of the primary health care services. This calls for specialized training of medical officers in geriatric medicine. Factors such as a lack of transport facilities and dependency on someone to accompany an elderly to the health care facility impede them from accessing the available health services. Thus peripheral health workers and community health volunteers should also be trained to identify and refer elderly patients for timely and proper treatment [16].

The most recent national policy effort is the National Programme for the Health Care of the Elderly (NPHCE), launched by the government of India in 2011 with the vision to provide accessible, affordable and high quality long term dedicated services to the elderly by creating more enabling environment for a society for all ages to promote active and healthy ageing [17]. The program however seems to have overlooked the problems of care-givers of the beneficiaries. Although a number of dedicated services have been set up at various levels of healthcare delivery, these services lack specialized equipment and trained geriatric healthcare team to bring about target oriented management of geriatric problems. The attempt to improvise geriatric educational programmes at medical and public health institutes can be elaborated by extending the education to Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) professionals who can replenish the deficit of medical manpower and gaps in delivery of healthcare to the elderly. Home based care backed up by a pre-defined referral chain especially in rural and tribal areas should also be incorporated in the NPHCE. Other than having a national vision, the program should also have a decentralized vision that can make its policies demand driven to furnish services according to regional needs, which as the morbidity profile suggests, are very diverse. Implementation of the key strategies of the Integrated Programme for Older Persons (IPOP), increasing credibility of the National Council of Senior Citizens (NCSRC) and spreading awareness about the National Policy on Older Persons (NPOP) requires sincere state efforts to sustain the strength of the country's human resource which is ageing steadily. Implementation of various services promised to the elderly, at ground level, can convert the ambitious targets of the Indian government in the area of geriatric healthcare into reality. Strengthening pension schemes and formulating a plan for incentives to the elderly or the caretaker can generate, in addition to health benefits, the much needed enthusiasm required to ameliorate the condition of the Indian elderly.

Conclusion

Geriatric care has two distinct facets- first, promotion of health and longevity and second, management of diseases which are specifically incident in old age for sustaining a comfortable and healthy aging. The conventional modern medicine is apparently strong in terms of the second dimension, although the final outcome may not be significant because most of the diseases of old age are incurable. AYUSH system is notably strong in terms of the first dimension as it has rich potential to promote health of the elderly, besides the scope of rejuvenation and promotion of longevity. Consequently, improvement in quality-of-life of the elderly calls for a holistic approach and concerted efforts of the entire health sector with strong backing by the government. In general, the literature reviewed adequately answers the "what" and the "why" of aging and poor geriatric care in India, but more research is needed to understand "how" to instigate improvements. NPHCE is a laudable initiative which needs to work aggressively towards its targets. Integrated approach, like in many other areas of health care delivery, can play a crucial role in NPHCE.

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