Health-Care Needs and Morbidity Profile of the Elderly Veterans and their Dependents Staying in an Urban Area: A Cross-sectional Study

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Abstract

Aim and Objectives: This study aimed to assess the morbidity profile and health care needs of elderly veterans and their elderly dependants residing in an urban gated society. Methodology: This cross-sectional observational study was done by house to house survey of veterans and their dependents more than 60 years residing in gated urban cooperative housing society. A predesigned questionnaire to assess the comorbidities (lifestyle diseases, geriatric syndromes, and reversible disabilities) and perceived health-care needs was administered. Data were analyzed using descriptive statistics by SPSS 22 software. Results: Four hundred and six elderly veterans and their dependents were interviewed, which included 53.7% females. The mean age was 71.69 years. It was noted that 14.5% of the veterans were staying alone and required the help of a caregiver hired from outside. Chronic noncommunicable diseases (CNCDs) were common with more than 70% of veterans having two or more comorbidities. Hypertension was the commonest disease with a prevalence of 51.5% followed by diabetes (30.8%), decreased vision (28.6%), dental problems (25.1%), osteoarthritis (19.7%), and hearing impairment (18.7%). Only 4.2% of the subjects gave history of falls. Malignancy and chronic obstructive pulmonary disease were reported by 3% each. Dementia was prevalent in 14.5% of the subjects. The greatest felt needs of the elderly were: A separate geriatric outpatient clinic, availability of transport for elderly within the hospital, separate queues at the dispensary and blood collection centres, and a geriatric helpline. Conclusion: CNCDs were present in more than 80% of elderly subjects surveyed. Hypertension was the commonest comorbidity followed by diabetes. Potentially, treatable disabilities were seen in one-third of the veterans. Separate geriatric clinic, separate facility for dispensing medicine, and blood collection centers and a geriatric helpline were the most felt needs by the elderly veterans and their dependents.

Keywords: Aging, chronic noncommunicable diseases, community health services, veterans

Introduction

The Indian Armed Forces are one of the largest in the world, employing more than a million personnel.[1] With increase in the longevity, there has been a rapid rise in numbers of the elderly veterans and their dependents. This has been seen in other countries also including the United Kingdom, Australia, and the United States, where number of veterans are increasing very rapidly.[2] With improvement in health-care services and increased longevity especially in the developing countries like India elderly population is the most rapidly increasing population and will reach 18.3% of the population by 2050[3] This exponential rise in the elderly veterans and their dependents pose a significant burden on the armed forces health-care system. It is seen that considerable resources in armed forces medical services are utilized in the treatment of armed forces veterans and their dependents. Conventionally, a family member was the primary caregiver for the elderly, but with rapid demographic and cultural changes family support is on decline, and thus care of the elderly has to be rethought. A number of contributory health schemes and health insurance schemes are available in the

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It is seen that chronic noncommunicable diseases (CNCDs), including lifestyle diseases, were the most common comorbidities in veterans. More than 70% of veterans had two or more illnesses. Hypertension was the most common morbidity with a prevalence of 51.5% followed by diabetes (30.8%), decreased vision (28.6%), dental problems (25.1%), osteoarthritis (19.7%), and hearing impairment (18.7%). Sixty (14.8%) elderly residents had dementia. History of falls was seen in 4.2% (17/406) patients, whereas malignancy and chronic obstructive pulmonary disease were seen in 3% (12/406) of the veterans. It was seen that more than half of the veterans visited the public health-care system either for a periodic check-up or to top up their medicines. One-third of the population also visited alternative medicine clinics including homeopathic, ayurvedic, and Unani clinics.

Seventy percent of the elderly veterans felt that there should be "separate geriatric clinics,” and more than 80% felt that the public health-care system can be improved to provide geriatric services. It was noted that a separate geriatric OPD by a trained physician in geriatrics was the most felt need followed by a facility of transport between OPDs, radiology, and laboratory services within the hospital. Separate queues for veterans at dispensaries and blood collection centers and a geriatric helpline were also perceived as an important health-care need. A large number of veterans wanted a weekly visit by a doctor to their housing society where common ailments and concerns could be addressed at their doorstep. Veterans also wanted biweekly facility of blood collection where periodic investigations could be done without a hospital visit. Other user concerns were provision of issuing medication for 3 months if the patient was stable and doing well on long-term medicines. A need for a prompt ambulance service, especially at night was also a concern voiced by the veterans.

**DISCUSSION**

With the improvement in health care and increased longevity, the number of elderly veterans and their dependents is rising rapidly. Aging is associated with multiple illnesses, disabilities and social issues. Elderly patients seek consultation from multiple specialists, and this leads to polypharmacy and increased risk of adverse drug reactions (ADRs). ADRs, in turn, triggers prescription cascades, further increasing the pill burden. Accrual of diseases is an inevitable consequence of aging, and treating all of them may not be realistic. It is important to identify the most distressing and reversible ones and addressing them. This will improve quality of life of the elderly. To do a this meticulous and systematic assessment of patients is required. The morbidities can be classified as reversible, partially reversible and irreversible and a comprehensive treatment plan can be formulated accordingly. The treatment should then be prioritized based on the patient’s own health-care needs and also on the concerns flagged by the family members and primary caregivers. This will lead to increased clientele satisfaction and optimal utilization of resources.
available resources. This will help to deliver a holistic and individualized health care to the veterans.

CNCDs were the most common diseases seen in our study population. This is in keeping with the trend reported by Arokiasamy and his team. In our study, it was seen that lifestyle diseases such as hypertension and diabetes were the most common diseases with hypertension present in almost half (51.5%) and diabetes in almost one-third (30.8%). This prevalence is much higher than the national levels where hypertension is present in 21% and diabetes is present in 10.1%. A recent study from North India has shown an alarming prevalence of hypertension in elderly around 40%. Hypertension increases with age as seen in a study from south India, where the prevalence of hypertension in the oldest elderly population was 83%. Other cardiovascular diseases, including stroke and coronary artery disease (CAD) were present in 11% of patients (stroke in 3% and CAD in 8.1%), which is also higher than the reported statistics. The range of undiagnosed hypertension ranges from 10% to 25% in various studies in India. In a recent study in six countries, including India, it was noted that large number of NCDs are neither diagnosed nor treated. In another Indian study it was seen that hypertension remained undiagnosed in almost 19% of the elderly population. Focusing on diagnosis and control of hypertension is of utmost importance to reduce the cardiovascular mortality in India. Among the reversible disabilities, 28.6% had vision impairment, 25.1% had dental problems, and 18.7% had hearing impairment. Catarract was responsible for defective vision in more than 80% of the veterans. These disabilities are potentially treatable and their treatment can go a long way in improving the quality of life.

It was noted that mental health disorders were common in our veterans with 14.8% having dementia and 5.9% having depression. The prevalence of dementia in our study was much above the reported prevalence. In a community-based study done by Shaji et al., in 2006, in urban India, the prevalence of dementia was around 3.5%. As per a recent report on Alzheimer’s disease from the UK, the global prevalence of dementia may vary 4.5%–7.5%. The prevalence of dementia increases with age reaching up to 20% in elderly above 80 years of age. The increased prevalence of dementia in our population may be due to increased average age of the population in our study and better access to free tertiary care facility leading to early diagnosis. A recent study done by Loganathan et al. in south India has predicted a rapid increase in dementia among the elderly. In a recent review, it has also been seen that lifestyle diseases and military-related risk factors pose a significant risk of causing cognitive impairment in elderly veterans. In our study, it was noted that lifestyle diseases had a very high prevalence which may be a contributing factor for increased prevalence of dementia. Geriatric syndromes were noted in 12.7% of veterans with 8.6% having urinary incontinence and 4.1% having a history of falls. It is important to identify these geriatric syndromes to look for a potentially reversible cause and to retard further progression of disability due to them.

An analysis of hospital/clinic visits showed that 90% of the visits were for periodic check ups or for topping up medications. Only 10% reported with a fresh medical problem or a medical emergency. Similar findings were noted in a study done by Jamkhandi and Bhattacharji in elderly patients more than 60 years attending general OPD in a tertiary care hospital in south India, where 88% of elderly visited the family clinic for routine follow-up and medicine prescriptions whereas only 12% visited with any new health problems. It was also noted that 14.5% of the veterans and their dependents were living alone and required a hired a part-time or full-time caregiver. This shows gradual demographic and cultural change in our society due to increase in nuclear families and decreasing family support leading to increasing caregiver dependence of aging population. In a study done in Singapore, it was noted that caregiver dependence was around 17.5% in the elderly patients. A recent Chinese review suggested that home-based care of elderly by trained care-givers should be encouraged in developing countries like China and India. The community-based trained health-care worker should be supported by the health-care set up by prompt access to a trained health-care professional (trained geriatric nurse or a physician) with the use of digital devices and applications. There should also be a prompt access to ambulance along with predesignated plan for emergency evacuation. This will go a long way in providing comprehensive care in a resource-limited setting. It is recommended that medical care needs to be more geriatric centric and easily accessible. It should reach the doorstep of the elderly veterans and their dependents. It is very important to identify the frail and vulnerable elderly so that comprehensive geriatric assessment can be done and all the reversible factors can be addressed. Specific interventions can be initiated for veterans and their dependents along with preventive strategies to maintain the health of our veterans. This will go a long way in helping our veterans to live with dignity and age gracefully. It is recommended that separate geriatric services for elderly veteran’s and their dependents are a need of the hour so that comprehensive, holistic, and accessible health care can be provided to them. Training of a family member in caregiving and availability of a trained external caregiver is very important for providing a good and efficient home-based care.

**Conclusion**

CNCDs were present in more than 80% of the elderly veterans and their dependents. Hypertension was the most common illness followed by diabetes mellitus. More than 70% of veterans had more than two comorbidities. Defective vision and dental problems were seen in one-third of the elderly veterans, which are a major reversible disability in the elderly. More than 80% of veterans felt that there is a need of a separate geriatric OPD where all their common issues can be resolved along with a separate facility for dispensing of medicines and
collection of blood. More than two-thirds of the veterans felt a need for geriatric helpline, physiotherapist, and geriatric nutritionist. It was noted that around one-third of the elderly veterans were suffering from geriatric syndromes which included falls, urinary incontinence, and cognitive decline who require individualized and a specific care with training of the caregivers to improve the quality of life and avoid future worsening of the health.

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Conflicts of interest
There are no conflicts of interest.

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