

Preventive Strategies in Geriatric Medicine: A Comprehensive Review

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Abstract

Majority of people above age of 60 live in rural areas with lack of adequate health services, economic and social services, and having limited work opportunities for this group of people. The growing trends towards the nuclear family making children live in the city or abroad are putting the elderly parents under vulnerability. The goal of geriatric medicine is to enhance the quality of life for aged by focusing on prevention and comprehensive management of age-related disorders. The proportion of geriatric (age above 60 years) populations has been increasing day by day. It was 11.3% in 2022 (Bangladesh Bureau of Statistics, 2023). Therefore, geriatricians have the prospective wider scope to help their clients in maintaining their health, independence, and well-being in particular. Aged people suffer from multiple health problems like; weakness, tooth problem, hearing problem, vision problem, body ache, back pain, rheumatic pain and stiffness in joint, dementia, prolonged cough, breathing difficulty, asthma, palpitation, high blood pressure and micturation difficulties in addition to long term non-communicable diseases, in addition to psychological & social problems in particular. These groups of people are vulnerable to abuse, isolation, economy, illness emotion, family burden including decrease body resistance, chronic diseases, and detached family members. In addition absence of strong social security system, less employment opportunity, high treatment cost, and absence of adequate health facilities for elderly, lack of laws for elderly people, and friendly environments in the society. In this context improved geriatric medicine practice can enhance the quality of life for the aged by focusing on prevention and comprehensive management of age-related disorders through holistic approach. Geriatricians would be able to help their consumers in maintaining their health, independence, and well-being by well trained & coordinated multidisciplinary team approach utilizing all levels of health care delivery system in the country in particular.

Keywords: Geriatrics, Geriatrician, Clients, Multidisciplinary, Vulnerability, and Team approach

Introduction

Geriatrics emphasizes helping aging adults maintain their abilities and quality-of-life. However, the term Gerontology is the study of the physical aspects of aging, as well as the mental, social and societal implications of aging that can be a rewarding field, allowing you to practice a range of skills to improve the health of older adults. On the other hand, Preventive Gerontology is the study and practice of those elements of lifestyle, environment, and health care management that will provide the maximal longevity of highest quality for individuals and the population.

Geriatrics is the specialty focused on the high-quality, person-centered care needed as we age, a “High-quality Person-centered care” aims to improve health,

independence, and quality of life. Geriatric conditions include; cognitive impairment, falls, incontinence, low body mass index, dizziness, vision impairment, hearing impairment and dependency in activities of daily living i.e. bathing, dressing, eating, transferring, toileting. Examples of Geriatric syndromes include a number of conditions such as dementia, depression, delirium, incontinence, vertigo, falls, spontaneous bone fractures, failure to thrive, and neglect and abuse. Geriatric syndromes are associated with reduced life expectancy. Most common geriatric syndromes are pressure ulcers, incontinence, falls, functional decline and delirium. In dealing geriatric patients the fundamental components of communication are to be considered are to allow extra time for older patients, minimize visual and auditory distractions, sit face to face with the patient, don't underestimate the power of eye contact, listen without interrupting the patient, speak slowly, clearly and loudly and use short, simple words and sentences. In dealing patients in addition to communication skill multidisciplinary team must be effective and efficient having some key attributes like; collaborative practice, clear definition of tasks and responsibilities, clear goals, objectives and strategies, recognition of and respect for the competence and contribution of each team member as well as competent leadership. Moreover, Geriatric evaluation and management (GEM) care sounds essential in which the primary clinical purpose or treatment goal will be improvement in the functioning of a patient with multi-dimensional needs, associated with age related medical conditions with or without complex psychosocial problems indeed.

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Furthermore, implementation of a Comprehensive Geriatric Assessment (CGA) tools having components of managing acute illnesses or chronic medical conditions, assessing mobility and function capacities, assessing social supports, assessing memory and cognitive function, and assessing nutritional status would have been worthy towards defining gravity of the situation & early intervention in particular. Thus will ensure quality health care for individuals includes two fundamental elements: appropriate treatment for current illness and appropriate preventive care to attempt to lessen future health problems of this group of people decline. Preventive health care is an important aspect of medical practice, leading to significant improvements in overall health¹. With a focus on promoting health, preventing disease, and managing chronic conditions, geriatric medicine plays a pivotal role in addressing the unique healthcare needs of older adults².

Life expectancy of geriatric population increases, the prevalence of age-related disorders such as dementia, osteoporosis, and cardiovascular diseases. Geriatric medicine, with its holistic approach to elderly care, is uniquely positioned to address these challenges. Geriatricians are to be trained to understand the complex interplay of physical, psychological, social, and environmental factors that affect an older person's health³.

This paper high light key aspect of geriatric medicine, management of age-related disorders, impact of geriatric medicine on quality of life as well as geriatric situation in Bangladesh with root causes of vulnerability in our context.

Key aspect of geriatric medicine

Prevention is the key of geriatric medicine. Geriatricians should work closely with patients in identifying risk factors for age related diseases and should develop strategies to overcome those risks e.g. life style modifications, such as dietary changes, exercise regimens, and in some cases, preventive medications etc⁴. As an example osteoporosis a common age-related disorder can be prevented or delayed by promoting bone health with adequate calcium and vitamin D intake, regular weight-bearing exercise, and if necessary with medications to enhance bone density. On the other hand, cognitive decline for many older adults can be mitigated through mental stimulation, social engagement, and management of cardiovascular risk factors as well.

Management of age-related disorders

Apart from prevention geriatric medicine plays a crucial role in managing age-related disorders. Geriatricians will consider the patient's overall health and quality of life in treatment decisions ensuring the medications those will not interact and ensure treatments be align with the patient's health benefit un achieving desired goals⁵⁻⁶. As an example a geriatrician will managing a patient with Alzheimer's not only by prescribing medications to slow patients cognitive decline but also address associated e.g. depression, sleep disturbances, and caregiver stress including environmental

stress if any. Geriatricians are supposed to coordinate with neurologists, psychiatrists, and social workers to ensure comprehensive care. Simultaneously in managing arthritis, a geriatrician should consider the impact of pain on the patient's mobility, independence, and overall well-being with emphasizing on pain management, physical therapy, and by surgical interventions when necessary.

Impact of geriatric medicine on quality of life

The ultimate goal of geriatric medicine is to enhance the quality of life for aged by focusing on prevention and comprehensive management of age-related disorders. Geriatricians would help their patients in maintaining their health, independence, and well-being in particular. Those preventive strategies can be categorized into five general groups: (i) **Traditional prevention approaches** for definable diseases or conditions such as hypertension and glaucoma. (ii) **Behavioral patterns** that leads to beneficial or adverse effects on health status as health behaviors risk factors rather than diseases or impairments e.g. smoking, diet modification, exercise, weight control, participation in social activity, and stress reduction. (iii) **Problems necessitating attention from professional health care providers** that may cause disability such conditions include vision and hearing impairment, dental problems, foot pathology, depression, alcohol abuse, and urinary incontinence those demands secondary prevention. (iv) **Iatrogenic problems** are the impairments, disabilities and handicaps that stem from health care itself e.g. adverse drug reactions or side effects. (v) **Environmental hazards** includes, poor lighting, frayed carpets, lack of hand holds, and accidents in addition to abuse and neglect of elderly persons⁷⁻⁸.

Apart from that other high risk groups such as the elderly living below the poverty level above the age of 80, and the home bound and bedridden. The identification and treatment of these groups requires different strategies particularly screening and case-finding⁹⁻¹⁰. Thus, preventive and curative care is intertwined in this age group as a holistic approach in achieving these goals & strategies effectively and efficiently. Different models of geriatric services have been developed¹¹⁻¹².

These models are based on the principles of a multidisciplinary well trained and well coordinated team approach including doctors, nurses, physiotherapists, occupational therapists, social workers, psychologists, podiatrists, dentists, dietitians, and others both from medical & social background. Continuous care including acute care and rehabilitation, community services and long-term care would be in practice¹³⁻¹⁶. Certain provisions would be beneficial like; check for nutritional status, physical activity and drug use (including over-the-counter medications), avoidance and discontinuation of any unnecessary drugs, assessment of ability to perform activities of daily living. Check for eyesight and hearing accuracy, including teeth and dentures in addition to

measurement of height, weight and body mass index. Annual / bi-annual measurement of blood pressure, signs of depression, mental deterioration, physical and emotional abuse and neglect. Search for a history of falls, and advice about fall prevention and exercise, driving, alcohol and cigarettes and advice about heating in the winter. Search for urinary incontinence. Mammography and colonoscopy are indicated for high risk persons, with annual check-up of occult blood in stool until age 80. Vaccines: influenza vaccine yearly, diphtheria-tetanus vaccine every 10 years, and pneumovax every 6 years. Other conditions for which periodic assessment may be warranted¹⁷ but still need further research include: anemia, glaucoma, hyperglycemia, prostatic and gynecological neoplasms, renal impairment and tuberculosis. Conditions that do not presently warrant periodic assessment in the asymptomatic elderly include dementia, hyperlipidemia, hy-pothyroidism, lung cancer and osteoporosis.

Geriatric situation in Bangladesh with root causes of vulnerability

Due to improved quality of life in Bangladesh the number of aged people over 60 years is increasing rapidly as an emerging health care challenges required special attention for care-giving services. The growing trends of nuclear family putting our elderly parents a dilemma of financial and social crisis. The nutrition and health status at this age should be a major concern. To provide special medical care for the elderly there is a need to establish WHO recommended Age-Friendly Primary Health Care centers and separate wards /units are to be set up in the hospitals. To reduce vulnerability of older women there is a need to distribute assets and properties according to the law of this country. Care of the elderly should be our ethical duty and responsibility¹⁸. In Bangladesh, traditional family patterns norms and values are gradually breaking down resulting negative attitude to respect elderly people in the family, community and society thus suffers from multiple health problems like; weakness, tooth problem, hearing problem, vision problem, body ache, back pain, rheumatic pain and stiffness in joint, dementia, prolonged cough, breathing difficulty, asthma, palpitation, high blood pressure and micturition incompetence demands long term psychosocial treatment, nursing care and hospitalization.

Root causes of vulnerability in elderly people are abuse, isolation, and do not have enough time to spend by the family members and community. The other causes are economy, illness emotion, family burden, retirement as well as no income source. In addition decrease body resistance, chronic diseases, and detached family members leads to aggravate the situation. In addition absence of strong social security system, less employment opportunity, high treatment cost, and absence of adequate health facilities for elderly, lack of laws for elderly people, and friendly environments in the society also leads to enhancement of vulnerability indeed¹⁸.

The challenges are also unemployment and burden: Elder persons are being considered “unemployable” because of their age and forced to stop working because of mandatory retirement ages. Elder person facing non-communicable diseases that may need long term costly treatment. A well planned program has to be undertaken and adequate resources to support the elderly population. Pension schemes will have more beneficiaries who will be eligible for pensions for a longer period. Social security scheme system will be beneficial if considered. Social security schemes will have to accommodate more people and therefore will be under pressure¹⁹. The emerging issues of the elderly are mentioned as a 'current and upcoming challenges' in the draft National Health Policy, 2008²⁰.

Root cause of vulnerability: Bangladesh Context There are mainly two types of neglect: active neglect - the caregiver intentionally fails to meet his/her obligations towards the older persons. passive neglect - the failure is unintentional. With the both neglect the caregiver fails to meet the physical, social and emotional needs of the older person. The proportion of female elderly is almost two third higher than the male elderly in terms of residing with their daughters. This is an indication of gender discrimination as daughters (female) are to take the burden of mothers (female). Another interesting finding is that none of the male elderly resides with 'other people' except their children but a few numbers (2.3%) of female elderly reside with other people who are not their children. Both abuse and neglect is higher in rural than urban areas and women is being faced more than male irrespective of residence²¹.

Conclusion

Geriatric medicine can plays a vital role in the prevention and management of age related disorders through holistic and patient-centered approach towards health goal. Classical approaches are not enough therefore opportunities are there for primary and secondary prevention with due distinction at all level of health care delivery. One stop multidisciplinary well trained & coordinated team approach care using primary health care network of the country would have been worthy. Community awareness & mobilization and education (age related Behavior Change Communication) including risk and vulnerability at this age can also be pertinent in dealing with age related disease and disorders. It is the community & social responsibility of all citizens of Bangladesh for the wellbeing of our elderly indeed.

Conflict of interest: No

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