

Preventive measures and care for geriatric population



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Abstract

India's population has undergone a notable transition in recent years, from high birth and death rates to lower rates. This demographic shift, coupled with increased longevity, has resulted in a significant rise in both the absolute number and proportion of elderly individuals. This demographic trend is projected to continue unabated in the coming decades, often overlooked but with substantial implications. The rapid and significant growth of the elderly population poses a considerable burden across various sectors including healthcare, social services, and the economy. It is imperative to acknowledge and address the challenges faced by this expanding demographic group. Proactive measures and interventions are essential to mitigate the potential strain on resources and the broader societal framework. By raising awareness about the issues affecting older adults and implementing preventive measures, India can better prepare to support its aging population.

Keywords: Demographic transition, Population aging, Elderly Population

1. Introduction

Geriatric healthcare, also known as geriatrics, is a specialized medical field dedicated to the health and well-being of elderly individuals. As our population ages, the need for comprehensive and specialized healthcare for older adults becomes increasingly vital. Geriatric healthcare focuses on managing and treating the unique medical conditions that arise with age and promoting overall quality of life and independence. This branch of medicine addresses a wide range of issues including chronic disease management, cognitive health, nutrition, mobility, and emotional well-being. Through personalized care plans and a multidisciplinary approach, geriatric healthcare professionals strive to optimize health outcomes and ensure that older adults can live fulfilling lives with dignity and comfort. Understanding the complexities and challenges of aging, geriatric healthcare emphasizes proactive, holistic care that respects the individual needs and preferences of elderly patients (1).

The classification of elderly individuals based on functional and cognitive status helps healthcare providers assess their overall health and determine appropriate care plans. Here are the common classifications depicted in Figure 1 (2):

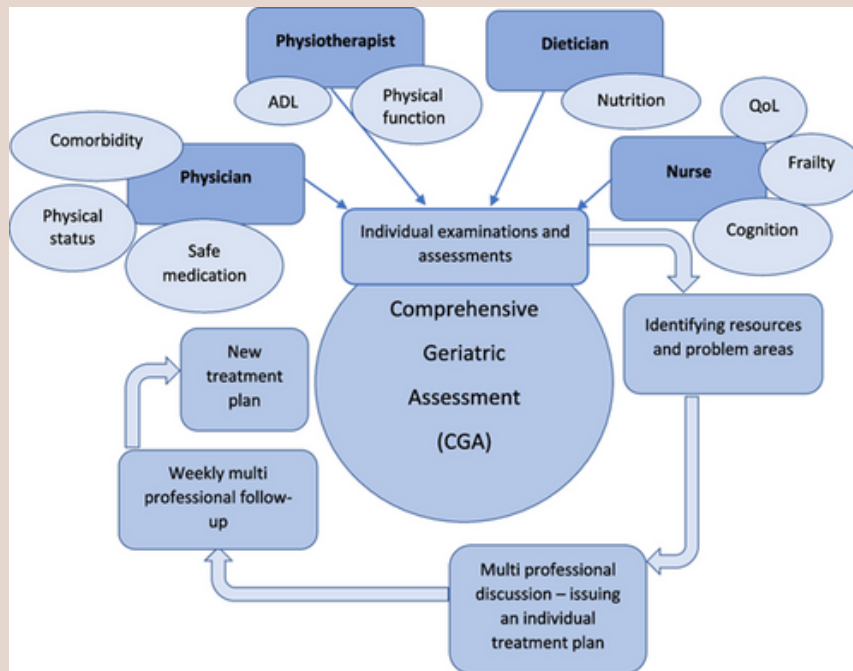


Figure 1. Comprehensive geriatrics assessment.

1.1. Functional status

- Independent: Elderly individuals who can perform daily activities such as bathing, dressing, eating, and mobility without assistance.
- Partially dependent: Those who require some assistance or supervision with certain activities of daily living (ADLs) due to physical limitations or health conditions.
- Dependent: Elderly individuals who are unable to perform ADLs independently and require full assistance for most or all activities.

1.2. Cognitive status

- Intact cognitive function: Elderly individuals who have no significant impairment in memory, orientation, judgment, or problem-solving abilities.
- Mild cognitive impairment (MCI): Those with noticeable but not severe cognitive decline, often involving slight memory problems or difficulties with language or executive function.
- Dementia: Elderly individuals with significant cognitive decline affecting multiple cognitive domains, leading to impaired daily functioning and independence. Dementia can include conditions like Alzheimer's disease.
- Severe cognitive impairment: Individuals with profound cognitive deficits, often requiring extensive assistance for all activities may have difficulty with communication and self-care.

2. Key advancements in geriatric healthcare

Advancements in geriatric healthcare have been instrumental in improving the quality of life and outcomes for elderly individuals. As the population ages globally, including in countries like India, medical research and innovations have focused increasingly on addressing the unique health challenges faced by older adults. Here are several key advancements in geriatric healthcare (3,4):

2.1. Specialized geriatric assessment: Geriatricians utilize comprehensive assessments that consider not only medical conditions but also functional, cognitive, and social aspects of older adults' health. These assessments help in identifying geriatric syndromes such as frailty, falls, and delirium early on, allowing for targeted interventions.

2.2. Multidisciplinary care teams: The approach to caring for older adults often involves multidisciplinary teams comprising geriatricians, nurses, social workers, physical therapists, and occupational therapists. This collaborative effort ensures holistic care that addresses both medical and non-medical aspects of aging.

- 2.3. Management of chronic conditions:** Advanced strategies for managing chronic diseases prevalent in older adults, such as hypertension, diabetes, osteoarthritis, and heart disease, focus on personalized treatment plans that consider the unique needs and tolerances of elderly patients. This includes optimized medication management to minimize adverse effects and interactions.
- 2.4. Preventive care and screening:** Emphasis on preventive care through vaccinations, cancer screenings, and assessments for osteoporosis and cognitive decline plays a crucial role in maintaining health and preventing complications in older adults.
- 2.5. Geriatric psychiatry and mental health:** Advances in understanding and treating mental health conditions prevalent in older adults, such as depression, anxiety, and dementia-related behavioral symptoms, have led to improved therapies and support systems.
- 2.6. Palliative and end-of-life care:** Enhanced approaches to palliative care ensure that older adults with serious illnesses receive compassionate and supportive care that aligns with their preferences and values, promoting comfort and dignity in their final stages of life.
- 2.7. Education and training:** There is a growing recognition of the importance of educating healthcare professionals in geriatrics. Medical schools and residency programs increasingly incorporate geriatric principles to equip future physicians with the skills needed to care for an ageing population effectively.

3. Epidemiology of geriatrics

The epidemiology of geriatrics involves the study of the distribution and determinants of health and diseases among elderly populations. This field examines various aspects including the prevalence of diseases, risk factors, healthcare utilization patterns, and outcomes specific to older adults. Here are key elements of the epidemiology of geriatrics (5-7):

- 3.1. Demographic shifts:** Geriatric epidemiology tracks demographic changes in the ageing population, including trends in life expectancy, population growth of older adults, and demographic variations across regions and socioeconomic groups.
- 3.2. Prevalence of chronic conditions:** Chronic diseases such as hypertension, diabetes, cardiovascular diseases, arthritis, osteoporosis, and dementia are highly prevalent among older adults. Geriatric epidemiology studies the prevalence rates, trends over time, and geographic variations of these conditions.
- 3.3. Geriatric syndromes:** Geriatric syndromes like frailty, falls, delirium, urinary incontinence, and pressure ulcers are common among elderly populations. Epidemiological studies examine the prevalence, risk factors, and impact of these syndromes on health outcomes and quality of life.
- 3.4. Cognitive health:** Epidemiological research focuses on the epidemiology of cognitive impairment and dementia, including Alzheimer's disease. Studies investigate the prevalence, incidence, risk factors, and progression of cognitive decline among older adults.
- 3.5. Functional status and disability:** Assessing functional status and disability levels is crucial in geriatric epidemiology. Studies explore the prevalence and determinants of physical and cognitive disabilities, limitations in activities of daily living (ADLs), and mobility impairments among elderly populations.

4. Preventive measures for the elderly

Preventive measures for elderly individuals are essential to promote healthy aging, prevent diseases, and maintain overall well-being. Here are some key preventive measures recommended for older adults (8):

- 4.1. Regular health check-ups:** Routine health screenings and check-ups are crucial for early detection of health issues such as hypertension, diabetes, cardiovascular diseases, osteoporosis, and cancer. These screenings help in timely intervention and management.
- 4.2. Vaccinations:** Ensuring up-to-date vaccinations against influenza (flu), pneumococcal disease, shingles (herpes zoster), and other preventable diseases helps reduce the risk of infections and complications, which can be more severe in older adults.
- 4.3. Healthy diet:** A balanced diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats supports overall health and helps manage chronic conditions like hypertension and diabetes. Adequate hydration is also important.

- 4.4. Regular physical activity:** Engaging in regular exercise such as walking, swimming, or tai chi helps maintain strength, flexibility, balance, and cardiovascular health. Physical activity also supports cognitive function and mental well-being.
- 4.5. Medication management:** Proper medication management is critical to avoid adverse drug interactions and side effects. Older adults should review medications with their healthcare provider regularly, adhere to prescribed dosages, and be aware of potential interactions with over-the-counter medications or supplements.
- 4.6. Cognitive stimulation:** Activities that stimulate the brain, such as reading, puzzles, learning new skills, and socializing, can help maintain cognitive function and reduce the risk of cognitive decline and dementia.
- 4.7. Emotional and mental health support:** Older adults should prioritize mental health by managing stress, seeking support from loved ones or professionals if needed, and participating in activities that promote relaxation and well-being.

5. Gaps in geriatric healthcare

Despite advancements, several significant gaps in geriatric healthcare pose challenges to effectively meeting the needs of older adults (9,10):

- 5.1. Under-representation in healthcare education:** Geriatric medicine is often underemphasized in medical school and residency training programs. As a result, healthcare providers may lack adequate knowledge and skills in managing complex geriatric conditions and understanding the unique needs of older adults.
- 5.2. Fragmentation of care:** Older adults often have multiple chronic conditions and see multiple specialists, leading to fragmented care. Coordination between healthcare providers, including geriatricians, primary care physicians, specialists, and caregivers, is essential but often lacking.
- 5.3. Limited access to geriatric specialists:** There is a shortage of geriatricians and healthcare professionals with specialized training in geriatrics. This shortage limits older adults' access to comprehensive geriatric assessments and tailored care plans.
- 5.4. Ageism and stereotyping:** Ageist attitudes and stereotypes can affect the quality of care provided to older adults. Healthcare providers may overlook symptoms, dismiss complaints as a natural part of aging, or under treat conditions due to assumptions about older adults' abilities and health status.
- 5.5. Barriers to healthcare access:** Older adults may face barriers such as transportation issues, mobility limitations, financial constraints, and lack of caregiver support, which can hinder access to healthcare services and preventive care.
- 5.6. End-of-life care and palliative care:** There is variability in access to high-quality palliative care and end-of-life care services for older adults, leading to disparities in symptom management, comfort, and dignity at the end of life.

6. Conclusion

In conclusion, while there have been notable advancements in senior healthcare, significant gaps hinder optimal care delivery to older adults. These gaps include inadequate training of healthcare providers in geriatrics, fragmentation of care, limited access to specialized geriatric services, ageism, barriers to healthcare access, complex medication management issues, insufficient support for caregivers, disparities in end-of-life care, and research gaps. Furthermore, supporting caregivers, addressing social determinants of health, improving palliative and end-of-life care services, and advancing research in aging-related conditions are crucial steps towards ensuring that older adults receive compassionate, comprehensive, and effective healthcare. By closing these gaps, we can promote healthy aging, enhance the quality of life, and uphold dignity for older adults as they navigate the complexities of aging.

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