CHAPTER - 1

INTRODUCTION
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We seem to use the word globalization in two specific contexts, namely the globalization of communication and the globalization of the economy. Both of these aspects of globalization are expected to have some implication for the process of ageing in our society. We are not clear of what these implications might be but generally; we seem to be afraid that globalization may increase the problems that the elderly will be all upon to face.

The Elderly in the Context of Globalisation: -

Globalization means accentuated change. If ageing makes adjustment to change difficult then we would expect globalisation to change to increase life stress across all groups and income levels of the elderly though naturally there would be individual and group related variations.

The elderly in every country tend to be looked upon as among the relatively weaker segments of the populations. Our fears for the elderly in India as for other weaker sections are born out of this scenario of developments in the world economy. It is important to consider which aspects of social and cultural change are likely to affect the elderly and in what manner.

One of the first things about the elderly is to realize that though we often think of them as a single group in juxtaposition with the young they are in fact not a single group. They are divided by income level, gender and community affiliation differences like any other group. Besides in the case of the elderly there are important differences of marital status and health status. In the new scenario, we would expect all the elderly to be challenged by changes in two
areas of life, namely, the economy and the family. These changes will probably not be different from the ones that all countries, which are passing through industrialization and urbanization, would expect but with globalisation they might become swifter and more discontinuous in relation to the traditions of the particular society. To that extent they would cause greater stress.

Occupational differentiation and monetisation of the economy are two of the important aspects of urbanization and industrialization and that these are likely to be further extended in society as a result of the process of globalisation. These changes are likely to affect the elderly directly and indirectly.

Disengagement from formal work often means not only loss of income but also of status in the family as successfully the person moves from being a bread winner for the family to a partial contributor, and finally to be a dependent on the family. It creates the problem of finding a meaningful social role for the retired individual within the family and outside. The absence of such a role can lead to loss of self-esteem. In turn this may make the elderly individual more assertive and demanding of attention and thus complicate the problems of joint family living. Alternatively it may lead individual to an increasing withdrawal from family interaction. Such withdrawal may be sublimated and sanctioned by reference to traditional religious goals and practices or in extreme cases, may lead to depression and psychological morbidity.

**The Elderly and Demography:**

Ageing is the progressive decline in function and performance that accompanies advancing years. It is the process of growing old, resulting in part from the failure of body cells to function normally or to produce new body cells
to replace those that are dead or malfunctioning. The above mentioned description is related to the biomedical view.

A definition of ageing depends on how it is viewed from different perspectives. In 1880 the German Chancellor Otto Von Bismarck selected the 65th year as a point to provide social security benefits to elderly persons. In India it has been a convention to take the 60th year as the point of turning old. Indian culture prescribes celebrations to mark the event.

It is projected that the elderly population of the world will cross the one billion mark by the year 2020. By the time, over 700 million old people will be living in developing countries. In India, around 11 percent of the population will be 60 years and above. It is important that elderly people are not taken as a burden on society, but rather as an asset.

India is currently entering the gray revolution, ranking second among the countries in terms of population. Population ageing is an inevitable byproduct of demographic transition. Demographic projections indicate that India's elderly population would increase at a rate of about 4 percent per annum in next three decades due to the declines in mortality and fertility levels. It has been found from the census that the population of aged in India is rising rapidly. The number of aged persons, which was 43.5 million in 1981, grew to 61.4 million in 1991. The number of elderly persons reached 76 million by the year 2000.

India is huge country and its many regions exhibit considerable demographic diversity. Kerala is far more advanced in the demographic transitions than any other state. Kerala population is ageing rapidly. In 1981 about 8 percent of the population were aged 60 and over, which was one of the highest in India. By 2026 it is expected that 18 percent of the population would
be in these ages. Among other states, Punjab and Tamil Nadu could be expected to experience rapid ageing of the population in the near future. In fact in 1981 Punjab reported the highest percentage of elderly population in India, even higher than that of Kerala.

**Elderly and Norms and Values of Indian Society:**

*The traditional norms and values of values of Indian society laid stress on showing respect and providing care for the elderly—consequently, the older member of the family were normally taken care of in the family itself. The institution of family fulfilled the needs of the elderly in respect of social, psychological and economic security. In addition, the family took care of their physical as well as mental well-being and in their turn the elderly contributed by dispensing the acquired wisdom and prudence, distributing their wealth, belongings and keeping the member of the family in union. This way the relationship had been one of symbiosis and reciprocity. Such a system of mutual support is not possible in a modern, industrial society.*

According to ESCAP report (1991), although family support and care of the elderly are unlikely to disappear in the near future, family care of the elderly seems likely to decrease as the countries of Asia develop economical and modernize in other aspects.

The traditional Indian value system used to place a heavy emphasis on prestige associated with old age. The elderly were the centers of authority and the most respected members of the family. These days, due to change in family structure, the elderly are not given adequate care and attention by their family members. This trend is fast emerging partly due to growth of individualism in modern industrial life and due to the materialistic thinking among the younger
generation. These changes lead to their greater alienation and isolation of the elderly from their family members and from society at large.

Most of the elderly were of the view that the younger generation did not pay respect to elderly and they perceive the stresses on the bonds of inter-generational togetherness in the future. Though a majority of the young generation viewed that the elderly were a socio-economic burden on them, the advantages from the elderly like care at the times of sickness, advice in family matters, education and all-round development of the family were also recognized by a few from the younger generation

Healthy Ageing: -

The aging process is influenced by life style, environmental factors, health care, disease and genetic constitution. Increasing age is associated with increasing disability and loss of independence with functional impairments such as loss of mobility, sight and hearing. A major challenge facing society is how it can maintain health and quality of life in an ageing population.

Evidence confirms that throughout life our chances of ageing successfully can be increased in various ways. In early life the intrauterine and early postnatal environment may program basic metabolic process and hence susceptibility to various conditions such as cardiovascular diseases and diabetes in later life. Growth and development of vital organs such as brain, muscles, bone and blood vessels, childhood and early adulthood build reserves that may affect later capacity. In later life, strategies may be to reduce damage, to increase protection against damage, by increasing antioxidant defenses or strengthening immune function or to prevent loss through lack of use.
A better understanding of the links between environmental factors and ageing is desirable to formulate intervention strategies. The postponement of age-related disability in older people depends on: Avoidance of negative risk factors, such as smoking and alcohol abuses; slowing of age-related decline in selected mental and physical functions e.g.: the rate of bone loss can be reduced through physical activity and adequate nutrition; and maintenance of intellectual stimulation or physical activity as well as physical retraining when necessary.

A rise in the intake of nutrients including calcium and Vitamin D, increased physical activity can prevent osteoporosis. Estrogen replacement therapy may be helpful in postmenopausal women.

The later phases of ageing are accompanied by a slow decline in the number of cells in striated muscle as well as its strength and speed of contraction. Even at advanced stages systematic training can result in improved strength and speed. A reasonable degree of physical activity will have a clear positive effect and performance.

A routine screening of nutrition in older people make good sense. Nutritional deficiencies as well as nutritional excesses are to be avoided.

Older people, in general, are comparatively more susceptible to infection, partly because of a decrease in immune response and the presence of other conditions. Early detection and treatment is important.

Smoking is associated with heart disease, stroke, hypertension, lung cancer and certain other cancers, emphysema and chronic bronchitis. Substantial benefits can be gained through smoking cessation.
Falls, frequently resulting in fractures are a significant problem for older people, especially in women. A reduction in their incidence, besides diminishing mortality and disability, would clearly produce financial saving in respect of treatment and care.

Although cancer is recognized as one of the main causes of death among older people, it may not be the ageing itself that leads to cancer, but lifetime exposure to carcinogenic compounds. The avoidance of such compounds throughout life can be expected to be of major consequence for the vitality of older persons. In general the most common cancers among older people are those of the lung, breast, prostate, colon, rectum and pancreas. Cancer prevention involves early detection and intervention. There is a need for simple, inexpensive and widely applicable screening tests for cancers.

Change in Old Age: -

Old age is characterized by definite changes in terms of biological, psychological and social aspects. These changes are important when we take about adjustment in respective areas.

Physical Changes: -

Many physical changes have been going on slowly for some decades and do not start at the age of 65; however, over that age, changes tend to accelerate. Tissues become less elastic hormone levels changes, bones become more fragile and joints show signs of wear and tear. Arteries become less elastic because of arteriosclerosis, cardiac output and chest movements are reduced, muscle bulk and strength are lost and the senses decline.
Psychological Changes: -

These changes are even more variable than physical changes old people have more difficulties adjusting to new situations and become less likely to change their attitudes with increased age memory, this trends to minimize but may be greater for complex recent memory.

Sociological Aspects: -

Societies attitudes to the elderly varies from culture to culture. For e.g. Indian culture, old people are referred as ‘elderly’ and they are considered as people with vast experience as a leader and their blessings are sought of the younger generation for any positive life events. They are approached for decision making in the family.

Loneliness, isolation and boredom are common complaints among elderly. Many feel tired and poorly motivated to take care themselves. At the same time, the members of the demented and the very frail elderly have meant that an increasing number of very old having tool to live alone. While the most vulnerable are admitted to the often-scare place in local old people’s homes and hospitals.

Social Theories: -

To understand the psychological adjustment of the aged, some theories have been postulated. Among them there are tow main theories, set out to describe why old people tend to isolate themselves socially.
1. Disengagement Theory: - (Cumming & Henry 1961)

In this theory ageing is an inevitable mutual withdrawal or disengagement resulting in decreased interaction between the ageing person and others in the social systems he belongs to, when the ageing process is complete, the equilibrium which existed. In middle life between the individual and his society has given way to a new equilibrium characterized by a greater distance and an altered type of relationships.

2. Activity Theory: -

Busse (1969) and Alchley (1972) provide helpful discussions of a second leading theoretical position referred to as activity theory. According to this theory, the majority of old persons maintain fairly constant amount of activity or social participation, the amount depending more upon past life style and socio-economic forces than upon age itself. Maintaining substantial levels of physical, mental and social activity is considered necessary for successful adjustment to ageing.

Ageing, Health Problem and Disabilities in the Elderly: -

With regard to the status, around 6 percent of the aged in India are immobile due to various disabling conditions. Approximately 50 percent of the elderly suffer from chronic diseases. Visual and hearing impairments are highly prevalent. At the same time, the availability of health services for the elderly is far from satisfactory. Knowledge among health workers of the specific needs of the elderly is also minimal.
i) Disease of Sensory Organs:

Disease affecting the eyes from the commonest morbidity among elderly. They include cataract, glaucoma, presbyopia, macular degeneration, diabetic and hypertensive retinopathy and infections of the eye. Hearing loss in old can lead to abnormalities of behavior. Hearing aid can be of help in a majority of persons with age related hearing loss.

ii) Bone and Joint Disease:

The most common forms, are due to osteoporosis. This includes post-menopausal and senile osteoporosis. Osteoporosis contributes to vulnerability to fractures. Physical inactivity and low calcium and low protein diet over the years add to the vulnerability to osteoporosis. Any patient over 50 years of age presenting with fractures of wrist, vertebra or hip should be suspected to have osteoporosis. Fracture of hipbone is a serious problem and leads to problem of recumbence. Preventive measures include physical exercises, calcium rich and protein rich diets, avoidance of smoking, alcohol and avoidance of falls. Hormone replacement therapy under expert supervision can be use in post-menopausal osteoporosis. Arthritis is mainly degenerative. Common symptoms of osteoarthritis are pain and stiffness in knee and lower back. Later, joints may be swollen. Treatments include rest of the joint, diathermy and analgesics. Prevention is by general physical exercise, exercises of muscles for specific joints and reducing obesity.
iii) **Cardiovascular Disease:**

a) **Hypertension:**

Hypertension may remain undetected unless specifically checked for. Treatment of hypertension reduces cardiovascular morbidity and mortality including decreased rates of stroke, coronary heart disease and congestive heart failure.

b) **Coronary Heart Disease (CHD):**

Indians have been shown to have the highest prevalence of coronary diseases. Compared to other races CHD prevalence in Indians is 2-4 time higher at all ages and 5-10 time higher in the below 40 year age group. Classical major risk factors for coronary heart disease are tobacco, abuse, high blood pressure, obesity, hypercholesterolaemia, diabetes, stress and lack of exercise. Control of major risk factors is crucial for coronary heart disease prevention.

iv) **Respiratory Diseases:**

Respiratory problems constitute an important cause of morbidity and mortality in the elderly. The main respiratory diseases occurring in the elderly include chronic obstructive airway disease, pulmonary tuberculosis, pneumonia, and carcinoma of the lung. Pneumonia is an important cause of mortality in old age. The mortality rates range from 10 to 20 percent for pneumonia. Prevalence of tuberculosis rises with age. The prevalence is higher among males. Prevalence of chronic bronchitis
over the age of 55 years is 17 percent and 12 percent for males and females respectively.

v) **Neurological Disorders:**

Common neurological disorders in the elderly include cerebrovascular disease, Parkinson’s disease, dementia, subdural hematoma, meningitis, tumors and Encephalopathies of different etiologies. A stroke occurs when the blood supply to part of the brain is cut off. Older people are particularly prone to strokes. In its mildest form the weakness and disabilities may be short lasting. In its severe form it may cause unconsciousness with complete paralysis of one side of the body and even death. The rehabilitation of stroke patients is a long-term process. Often the degree of disability varies from day to day, causing frustration and uncertainty for both the stroke sufferer and the caregiver. Alzheimer’s disease – an important cause of morbidity – is expected to rise along with the demographic transition in our country. The rate of occurrence of the disease increases exponentially with ageing. Epidemiological studies conducted in various parts of India have confirmed the presence of Alzheimer’s diseases as elsewhere in the world. Parkinson’s disease is another important cause of disability in old age. It involves people over 50 years of age. Prevalence and family history is between 2 – 15% percent.

vi) **Cancer:**

Cancer can affect many parts of the body and results in symptoms in the affected parts. Frequent sites of malignancy include breast, lung, prostate, stomach, colon, bone and lymph nodes.
vii) **Gastro-intestinal Diseases:**

Common gastro intestinal manifestations in old age include constipation, flatulence, anorexia, abdominal pain and occasionally diarrhoea and bleeding rectum.

viii) **Urogenital Diseases:**

Urogenital problems mainly consist of symptoms due to prostate enlargement in males and gynecological causes such as prolapse and malignancy in females.

ix) **Endocrine and Metabolic Diseases:**

The endocrine and metabolic disturbances that the elderly patients may suffer from include diabetes, obesity, thyroid disorders and sexual problems.

Type II Diabetes Mellitus occurs after the age of 30 but can occur for the first time after the age of 60. About 10 to 20 percent population suffers from diabetes after the age of 65; the percentage increases as age advances. Since it is a disease of predominantly higher age group, some patient may already develop complications like hypertension, retinopathy, nephropathy, neuropathy, coronary artery disease and cataract before they are diagnosed as having Type II Diabetes Mellitus.

Common causes of death in elderly are diseases of cardiovascular (e.g.; Ischemic heart disease), cerebrovascular (e.g.; Stroke), respiratory and renal systems, cancers and infections are also common cause of mortality.
Ageing and Mental Health: -

The weight of the human brain decreases by approximately 5 percent between the ages of 30 and 70 years. 10 percent by the age of 80 and 20 percent by the age 90. Changes occur in various part of brain along with these changes. Biochemically there is evidence of decline in some neurotransmitter systems and changes in brain protein synthesis. All these biological factors, together with psychosocial factors, contribute to the increased mental health morbidity associated with ageing.

Loss in the predominant theme in the emotional lives of elderly people. Losses in every aspect of later life causes older persons to spend enormous amounts of emotional and physical energy grieving and resolving grief, adapting to the changes that result from loss and recovering from the stresses inherent in this crisis. Old people are commonly confronted with multiple and concurrent losses (death of a spouse or friend, decline of physical health and change in personal status or prestige). Marital problems are other source of distress. Retirement and its resultant readjustment pose newer challenges.

Mental disorders of old age have generally been divided in to two kinds: the organic disorders. Older persons suffer from the same range of functional disorders as persons of other ages. The incidence of mood disorders rises with age. Neurotic disorders, which typically occur before age 30 may persist in to old age.

a) Dementia: -

Dementia means, collection of symptoms resulting from the failure of the brain to carry out basic functions. It is a progressive decline in the ability to
remember, to think and to reason. International Classification of Diseases – 10th edition (ICD –10) defines dementia as a syndrome due to the disease of the brain usually of a chronic progressive nature in which there is disturbance of multiple higher cortical functions including memory, thinking, orientation, comprehension, calculation, learning capacity, language and judgement.

Dementia produces an appreciable decline in intellectual functioning and usually some interference with personal activities of daily living. Dementia is a condition, which can be produced by various physical or neurological illnesses, which can affect central nervous system functioning.

Multi-infarct dementia occurs when the blood supply to small areas of the brain fails and cells in these areas of the brain die, i.e. there are multiple small strokes leading to several small infarcts. The onset may be sudden or gradual. There is loss of short-term memory. More and more abilities will be lost as more little strokes occur. The disease usually progresses in a stepwise fashion. Episodes of acute confusion are commonly seen in the illness.

Most of the cases of dementia are incurable. At the moment there is no curative treatment for Alzheimer’s disease. So treatment is aimed to improve the quality of life of the patients and to reduce the distress of the caregivers. Rehabilitation of patients with dementia involves interventions at different level i.e. individual, family and the community.


b) Delirium: -

Delirium is a common condition in the elderly. The main predisposing factors are preexisting dementia, defective hearing and vision, Parkinson’s disease and advanced age. The most frequent physical conditions that cause
delirium and pneumonia, cardiac failure, urinary infection and electrolyte imbalance. Various drugs that are used to treat many physical conditions can precipitate delirium.

Depression in the elderly is an under-diagnosed and under-treated disorder. Depression in the elderly may present with atypical symptomatology and many times family members are not aware that depression is present. The symptoms may be considered as a part of normal ageing. Depression in the elderly often presents as the somatic symptoms resembling other diseases. General practitioners may have inadequate skills to make a diagnosis. Unrecognized depression may lead to unnecessary investigations and unrelated drug administration with resultant side effects.

Depression is usually characterized by sad mood, slow thinking and activity with loss of interest and pleasure. The patient may have poor sleep and appetite, constipation and diminished sexual drive. There may be weeping spells, feelings of inadequacy, lack of confidence and ideas of worthlessness and hopelessness. In severe cases the patient may feel like killing himself, and might have made plans or may even have attempted suicide. Psychomotor agitation, rather than retardation, is more common in depression in the elderly. Ideas of self-reproach, guilt and hypochondriacal ideas are more frequent in elderly.

Paranoid reactions are very common in old age. Physical ill health and psychological setbacks can often precipitate transient paranoid illnesses. Neurotic disorders are less often seen in the aged. However anxiety disorders related to ageing are frequent, mostly manifesting as anxiety disorders or hypochondriasis.
Psychogenic pain disorder, affecting the head, abdomen, chest, back and joints are common. Sleep disturbances are common in the elderly population.

As we know the mental health is the component in the total health and well-being, the aged persons health depends on multiple dimensions. So it calls for the care services and interaction of the different professionals and their disciplines.

There are many factors, which contribute to the mental health of the aged. Cross sectional research has produced a list of factors correlated with mental health impairment in the elderly population. Among the more reliable associations are gender, socio-economic status, physical illness and ageing. Less reliable are a variety of other relationships. Among the psychological and social factors that have been connected with mental illness and social isolation, stress life events, marital status and loss of spouse.

From a traditional and pre-industrial social order, the Indian society is changing into a modern, urban and industrial one and in this process; the newly affected section of the society is made up of old people. The elderly face a number of problems and adjust to in varying degrees. These problems range from absence of ensured and sufficient income to support themselves and their dependents, to ill health, absence of social security, loss of social role and recognition, to the non-availability of opportunities for creative use of free time. Among many of these problems, health issues and medical care are considered to be a major concern among the large majority of the elderly. It is obvious that people become more susceptible to chronic disease, physical disabilities, and mental incapacities in their old age. It is generally noticed that the disease of the elderly are multiple and chronic in nature.
Some of the health problems of the elderly can be attributed to social values also. The idea that old age is an age of ailments and physical infirmities is deeply rooted in the Indian mind, and many of the sufferings and stresses with curable limits are accepted as natural and inevitable by the elderly. Such old people often feel that their end is so close that they need not bother themselves or others about their ailments. It is not uncommon to hear of older persons who refuse to take proper treatment merely because they have never taken such treatment before.

**Social Risk Factors:**

Social isolation or absence of social interactions, contacts and relationships is recognized as risk factors for disease and disability. The absence of social support is clearly linked to increased mortality rates. There is also a significant relationship between stress levels and susceptibility to disease. Bereavement is associated with immune suppression and elevated morbidity and mortality. Social isolation in older persons is evidently associated with increases in tiredness, visits to health providers, drug prescribing, and physical and psychological symptoms. The absence of social support tends to increase disease and disability; while its presence may hasten recovery and help to maintain health.

Health providers should be able to identify older people who are at high risk, intervene to increase their activity, and offer advice on obtainment of social support. Attention should be drawn to the resources that assistance should be provided for the building of networks. Relatives and friends should be educated and informed about the needs of older people.
Health Care Services for the Elderly:

Health care providers have become more aware of the increasing complexity of caring for elder individuals.

Care of older persons is further complicated by the lack of knowledge on the part of health care practitioners regarding gerontological care.

i) Geriatric Medicine:

Ignatz L. Nascher, a Viennese immigrant to the United States in 1909, first coined the word “geriatrics”. Nascher’s initiative provided a stimulus for social and biological research on ageing.

Geriatric medicine is an approach to general medical care of the elderly and is concerned with the clinical, preventive, remedial and social aspects of illness in the elderly.

Development of geriatric medicine becomes a prerequisite for making healthcare accessible to old persons.

ii) Psychogeriatric Services:

The principle aim of Psychogeriatric service is to meet the needs of the old people in its community. Usually the service operates from the psychiatric hospital or unit for the area, but it is concerned with the development of comprehensive assessment, treatment and care for the elderly mentally at large.
iii) Nursing Care for the Elderly: -

The nursing of the elderly is wellness-oriented and focuses on the quality of life of the elderly. Health promotion and prevention of illness are as important as medical treatment. Nursing the elderly involves assessing the health and functional status of the individual. Emphasis is placed on maximizing functional ability in the activities of daily living, promoting, maintaining and restoring health including mental health, preventing and minimizing the disabilities of acute and chronic illness and maintaining dignity in life and death. Gerontologic nursing may be practiced in any setting i.e. the hospital, clinic, home, community or home for the elderly.

iv) Home Care Nursing Services: -

Nursing is the core service in the delivery of home care. The nurse, working within the framework of a team that includes the patient, family, physician and others, is a case manager. He or she is responsible for assessing the patient, developing a care plan, and assessing its outcome using the nursing process. The goal of the nurse is to treat the symptoms of illness and disease, minimize disability and promote health within the context of home and community.

v) Hospice for the Terminally Ill: -

The primary aim of the hospice is to ensure dignity for the terminally ill or dying. The aim of hospital care is to cure. Patients suffering from terminal illness are beyond cure. They need emotional and religious support. There must
be dignity in dying. This is the aim of hospice – to ensure comfort in living and dignity in dying.

Alzheimer’s Disease: -

Alzheimer’s Disease (AD) is a progressive, neurogenerative disease characterized by memory loss, language deterioration, impaired visuopartial skills, poor judgement, indifferent attitude, but preserved motor function. AD usually begins after age 65, however, its onset may occur as early as age 40, appearing first as memory decline and, over several years, destroying cognition, personality, and ability to function. Confusion and restlessness may also occur. The type, severity, sequence and progression of mental changes vary widely. The early symptoms of Alzheimer’s disease, which include forgetfulness, and loss of concentration can be missed easily because they resemble natural signs of ageing. Similar symptoms can also result from fatigue, greet, depression, illness, vision or hearing etc.

Alzheimer’s disease is the progressive disease. The course of the disease varies from person to person. Some people have the disease only for the last 5 years of life, while others may have it for as many as 20 years. The most common cause of death in Alzheimer’s disease patients is infection.

Alzheimer’s disease is the most common cause of dementia. Dementia is a collective name for progressive degenerative brain syndromes, which affect memory, thinking, behaviour and emotion.

Dementia is not a normal part of ageing. It knows no social, economic, ethnic or geographical boundaries. Although each person will experience dementia in their own way, eventually those affected are unable to care
themselves and need help with all aspects of daily life. There is currently no cure.

**Causes of Dementia:**

There are number of diseases which cause the symptoms of dementia as a result of the changes they have on the brain and the ultimate loss of nerve cells (neurons). The most common cause includes

- Alzheimer’s Disease
- Vascular (multi-infarct) dementia
- Dementia with levy bodies
- Front-temporal dementia (e.g. Pick’s disease)
- Alcohol – related dementia (including Korsakoff’s syndrome)
- AIDS – related dementia

It is not currently understood why people develop dementia but there are many factors, which have been suggested to have an effect on the risk of developing dementia. Some of these include: age, genes, education, alcohol and head injury.

Alzheimer’s disease was first described in 1907 by the German physician *Alois Alzheimer*, who found at autopsy, abnormalities in the brain of a 51-year-old patient he was treating for dementia. The abnormalities, now known as plagues and tangles, are characteristic histopathological findings of Alzheimer’s disease.

These features are associated with the neuronal degeneration. A definitive diagnosis of Alzheimer’s disease cannot be made without identifying the
presence of these lesions by brain biopsy or at autopsy. A diagnosis of “Probable Alzheimer’s Disease” is usually arrived at by excluding the possibility that the patient is suffering from other conditions that have features similar to Alzheimer’s disease.

Warning Signs: -

To help family members and health care professionals recognize warning signs of Alzheimer’s disease, the *US Alzheimer’s Association* has developed a checklist of common symptoms. Early diagnosis of Alzheimer’s disease or other disorders causing dementia is an important step in getting appropriate information, treatment care and support services.

♦ **Memory Loss:** -

One of the most common early signs of dementia is forgetting recently learned information, while it’s normal to forget appointments, names or telephone numbers, those with dementia will forget such things more often and not remember them later.

♦ **Difficulty Performing Familiar Tasks:** -

People with dementia often find it hard to complete everyday tasks that are so familiar, we usually do not think about how to do them. The patient may not know in what order to wear clothes or the steps for preparing a meal.
Problems with Language: -

Occasionally everyone has trouble in finding the right word but an individual with dementia often forgets simple words or substitutes unusual words in making their speech or writing hard to understand.

Disorientation: -

It's normal to forget the day of the week or where you're going. But people with Alzheimer's disease can become lost on their own street, forget where they are and how they got there, and not know how to get back home. They can also confuse night and day.

Poor or Decreased Judgement: -

No one has perfect judgement all of the time. Those with Alzheimer's disease may dress without regard to the weather, wearing several shirts or blouses on a warm day or very little clothing in cold weather. Individuals with dementia often show poor judgement about money, giving away large amount of money to marketers or paying for home repairs or products they don't need.

Problems with Abstract Thinking: -

Balancing a checkbook may be hard when the task is more complicated than usual. Someone with Alzheimer's disease should forget completely what the numbers are and what needs to be done with them.
Misplacing Things:

Everyone misplaces things but a person with Alzheimer’s disease may put things in unusual places: an iron in the freezer, a wrist watch in the sugar bowl, or a sandwich under the sofa etc.

Changes in Mood or Behavior:

A person with Alzheimer’s may become unusually emotional and experience rapid mood swings for no apparent reason. Or he/she may show less emotion than was usual previously.

Changes in Personality:

The patient with Alzheimer’s disease may seem different in ways that are difficult to pinpoint. He may become suspicious, irritable, depressed, apathetic, anxious or agitated especially in situations where memory loss causes difficulties.

Loss of Initiative:

While everyone gets tired, a person with Alzheimer’s may become very passive, sleeping for hours or appearing to lose interests in hobbies.

Perhaps one of the greatest lost of Alzheimer’s disease is the physical and emotional toll on family, caregivers and friends. As Alzheimer’s disease makes in roads into a person’s memory and mental skills, it also begins to alter his or her emotions and behaviors. Patients can experience extreme agitation and feeling of anger, frustration, and depression. They can begin to exhibit bizarre
behaviors such as pacing, wandering, screaming and physical or verbal aggression. These changes in a loved one’s personality, the need to provide constant, loving attention, for years on end and the physical demands of bathing, dressing, and other caregiving duties are major reason for caregiver exhaustion and depression and for placing Alzheimer’s patients in nursing homes.

Alzheimer’s knows no boundaries – social, economic, ethnic or geographical. It affects one in 20 people over 65 years and is more common among the elderly, though it can affect the young too. As the disease progresses, the affected person becomes dependent on others for help with all aspects of daily life. At some point a person with Alzheimer’s will need 24-hour care including assistance with routine activities like eating, dressing or going to the toilet.

The caregiver or family member of a person who has Alzheimer’s faces many challenges, both in adjusting to new roles and coping with the profound changes in a loved one. If you’re facing this role, knowing what to expect can help you cope better. In turn, you will be able to do the most good for your love one. In fact, caregivers participation in education programs and support groups. Sometimes called “caregiver interventions” is now viewed as a critical facet of care for people with Alzheimer’s.

When the family and caregiver of a person with Alzheimer’s understand the disease and learn how to communicate and interact with the person in ways appropriate to the disease stage, they are better able to reduce behavioural problems and improve the quality of life for all involved.
Alzheimer’s Disease: General Principles of Management and Treatment: -

In the cultural context of the member countries of South-East Asia, lay caregivers provide best care for Alzheimer’s disease patients. These lay caregivers should be specifically trained in patient care. They must understand what Alzheimer’s disease is, and what the patient is capable or incapable of doing. Ideally, continuity of care by the same caregiver is desirable, but this may not be practical. The ‘fatigue factor’ of caregivers also needs to be taken into consideration. Immediate family members should be available to extend psychological support and supervision of lay caregivers. It is not necessary for them to do the physical work themselves.

Management of Patients of Alzheimer’s Disease: -

While there is no specific cure of Alzheimer’s disease, there is a need to look after the patients as well as their caregivers. Non-pharmacological interventions and the use of residential and domestic resources, such as day care, respite care and nursing home care, may reduce symptoms and suffering. Another important factor is financial and legal counselling essentially needed to preserve income and take decisions affecting the whole family.

In the early stages of Alzheimer’s disease, when intellectual function is reasonably preserved, patients may be encouraged to attend to legal matters and give consent to the types of treatment that they desire. These would form the advance directives of the person. An enduring or durable Power of Attorney could be prepared in favour of a loved one in the family or some close friend if such procedures are established in the country’s legal system. A formal will
could also be executed before it is too late as a result of the patient’s mental incompetence.

In the later stages of Alzheimer’s disease, the patient may not be aware of the consequences of the illness and it would then be a family decision to get him/her assessed and investigated. Treatment would mostly be based on the symptoms observed and arrangements have to be made for the long-term care of the individual by way of providing for caregivers, especially if there are none in the family.

For the patient, the family is the microcosm of the whole world. Accepting that a loved one has Alzheimer’s disease, coming to terms with it is the first challenge. The family has to become aware of the condition and how it is likely to progress. This is where several non-governmental organizations (NGOs) can step in. In many countries, Alzheimer’s associations have been set up to offer support and advise to people and families with Alzheimer’s disease.

Management of the behavioral complications and psychosocial support are essential in the treatment plans of people with Alzheimer’s disease and support, education and therapy need to be addressed to caregivers and family as well. Often such interventions can mitigate the progression of disruptive behaviors that may lead to nursing home placements.

The Alzheimer’s disease was not recognized as a devastating one until the 1980s. But, since then, we read about it almost daily and come to across people and families that have been affected by it. The German Alois Alzheimer described the disease somewhat definitely in 1912. the disease is named after him.
Once Alzheimer’s disease completely takes hold of a person, he/she becomes completely dependent on the caregiver. It is estimated that around 3 million people in India having dementia. Since it is a disease that affects the whole family, the total number of people who will be suffering from the effects of the disease will be more than three times bigger than this.

Alzheimer’s disease not only affects the person with dementia, it affects the entire family. The greatest burden is placed on the caregiver. The personal and emotional stress of caring of a person with dementia is enormous and you need to plan ways of coping with the disease for the future. Understanding your emotions will help you successfully cope with the person’s problem as well as your own. You are an important person in the life of the person with dementia. Without you the person would be lost.

**Old Age and the Alzheimer’s Disease:**

Old age creeps in slowly for the young adults. Sudden changes may take place for the old. However, the old person becomes forgetful. At first it becomes a matter for laughter and joke in the family. Soon one notices that the old person is more confused than ever. He has more frequent mood changes, and begins to act in strange ways. He forgets the names of people around him, names of his own children and grand children whom he loved deeply. He begins to suspect your motives and wants to avoid you. Soon the old person altogether. He does not know his name, does not recognize his environment, and does not recognize his family. He is a stranger in his own family. He leaves home at his will and does know where he goes or how he could return home. Family member are greatly worried and do not know what to do. The disease progresses rather
slowly. Only when the disease shows some severity, the family members often begin to seek medical consultation and attention for the patient.

**Indian Cultural Traditions and the Alzheimer’s Disease:**

In India and South Asian nations, cultural traditions took the oneself of senility as a natural process of ageing. Since life expectancy was rather short in these nations until a few decades ago, the Alzheimer’s disease was assumed to be an occurrence or the phenomenon of the western materialistic nations. There is a greater recurrence of this disease now noticed in India, especially among the people of middle classes.

Sadly the belief that the Alzheimer’s disease is a western phenomenon is not really true. Indian family traditions make us suffer from within, mourn our fate, and feel sorry for our dear old person who is now a stranger in his own family. We do not publicize our ‘fate’, and we are trained to put up with what we are faced with. Our public caregiving or medical systems are not prepared to handle such cases.

There is no cure for Alzheimer’s disease. However, there are several drug treatments that may improve or stabilize symptoms and several care strategies and activities that may minimize or prevent behavior problems. Researchers worldwide are working to develop psychosocial and medical interventions to help sustain or raise the functional capacities of persons with Alzheimer’s disease.

**Linguistic Characteristics of the Alzheimer’s Disease:**

One of the important characteristics of the disease is the strange disconnect in language use noticed in the patient. Language and communication
problems faced by the Alzheimer’s patient are ‘hallmarks’ of the disease. The language and communication deficiencies in the Alzheimer’s patient develop during the progress of the disease. There is actually no way that would help the professionals to easily separate the normal deficiencies in hearing and speech associated with the ageing process from the onset of the Alzheimer’s disease. It appears that there are no clear-cut diagnostic linguistic elements that would distinguish the Alzheimer’s disease at the onset level.

The Alzheimer’s patient continues to use the speech mechanism for the major part of his life as an Alzheimer’s patient. In other words, he is able to produce appropriate sounds and their combinations, able to generate words and sentences, and use these sentences in a discourse. But the relevance of the discourse to the context is slowly lost. Towards the end of his life, he may even lose his speech and language totally. Meaningfulness of the utterances is slowly lost, and when the disease is in its peak, contextual relevance is totally lost. He is not able to take turns in his conversations, and he does not recognize the addressee, nor is he interested in communication to be relevant or directed to the addressee. Towards the end, the patient’s speech becomes more repetitive and the meaning conveyed by him more incomprehensive as to its meaning. We can say that the speech of the Alzheimer’s patient may be intact but there is decline in his language as to its relevance in all aspects of language use; social, psychological, internal speech and the link between the utterance and the act.

Use of pseudo-words in place of real words is an important characteristic of language of the Alzheimer’s patient. First of all, he forgets the words, and then he tries to use some pseudo-words in place of the proper word that he has forgotten.
Another characteristic is the patient inability to recognize the relationship between the words as members of semantic domains. In other words, his sense of the semantic field or the collocation of the words is slowly lost. He is not able to recognize the relationship of a set of connected objects.

The Return of the Childhood Echolalia:

Echolalia is the another characteristic noticed in the language of the Alzheimer’s patient. An Alzheimer’s patient may begin to repeat words in the beginning, perhaps an emphasis. Soon the frequency and quality of repetition changes. He is no more repeating meaningful words from the adult language around him. He begins to repeat syllables, and true echolalia is the result.

The Alzheimer’s patient’s pragmatic nonverbal behaviour also deteriorates along with his verbal behaviour. He is not a concerned about the addressee. He is not fully aware of the topic of conversation between him and others. His reason and arguments do not go with the context and topic of conversation. His body language and his proxemic behavior have no relevance to the conversation he has with the people around him. His paralinguistic speech losses its value. In addition, he is soon unable to use the paralinguistic features at all. If he uses these features, such usage is faulty. He is not able to transform his statements into appropriate questions, positive statements into negative statements, etc. in other words, the patient is unable to deliberately manipulate transformations to generate effective sentences for communication purposes. He does not respond to the questions raised in an appropriate manner.
The Wheel of Alzheimer’s Disease: -

Cognition leads an infant who begins his articulation of language, and cognition diminishes in the adult Alzheimer’s patient long before the articulation of language begins to deteriorate. The loss of language is saddening and dramatic. Even as its quality begins to deteriorate mainly at the word level, the problems with semantics come to influence the use of syntactic constructors as will. And with the deterioration of syntactic abilities, phonetic articulation is affected. At the end, the Alzheimer’s patient begins to have less and less spontaneous speech. Linguistic silence sets in. The deterioration of cognition and consequent linguistic competence are at stake in the progress of the disease, but ultimately the speech is also affected or lost.

The Stages of Alzheimer’s Disease: -

Over the years, several different assessment scales have been used by physicians in an attempt to identify the stages of Alzheimer’s disease more precisely. “Information about how the disease progresses help families and professional better understand a person’s care needs”.

The Functional Assessment Staging (FAST) scale developed by Dr. Reisberg and colleagues, divides the progression of Alzheimer’s disease into 16 successive functional stages and assesses the loss of Functional abilities- such as dressing, toileting, eating, walking- within each stage.
# FAST STAGE
(Plus Clinical diagnosis)

<table>
<thead>
<tr>
<th><em>FAST STAGE</em></th>
<th>Characteristics</th>
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<tbody>
<tr>
<td><strong>1. (Normal AD)</strong></td>
<td>No decline in function</td>
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<tr>
<td><strong>2. (Normal AD)</strong></td>
<td>Personal awareness of functional decline</td>
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<tr>
<td><strong>3. (Early AD)</strong></td>
<td>Deficits noticed in demanding employment situations.</td>
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<tr>
<td><strong>4. (Mild AD)</strong></td>
<td>Requires assistance in complicated tasks, such as handling finances, planning dinner party etc.</td>
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<tr>
<td><strong>5. (Moderate AD)</strong></td>
<td>Requires assistance in choosing proper attire.</td>
</tr>
<tr>
<td><strong>6. (Moderately Severe AD)</strong>&lt;br&gt;6a.</td>
<td>Requires assistance in dressing</td>
</tr>
<tr>
<td><strong>6b.</strong></td>
<td>Requires assistance in bathing properly.</td>
</tr>
<tr>
<td><strong>6c.</strong></td>
<td>Requires assistance with mechanics &amp; toileting.</td>
</tr>
<tr>
<td><strong>6d.</strong></td>
<td>Urinary incontinence.</td>
</tr>
<tr>
<td><strong>6e.</strong></td>
<td>Fecal incontinence.</td>
</tr>
<tr>
<td><strong>7. (Severe AD)</strong>&lt;br&gt;7a.</td>
<td>Speech ability limited to about a half-dozen intelligible words.</td>
</tr>
<tr>
<td><strong>7b.</strong></td>
<td>Intelligible vocabulary limited to a single word.</td>
</tr>
<tr>
<td><strong>7c.</strong></td>
<td>Ambulatory ability lost.</td>
</tr>
<tr>
<td><strong>7d.</strong></td>
<td>Ability to sit up lost.</td>
</tr>
<tr>
<td><strong>7e.</strong></td>
<td>Ability to smile lost.</td>
</tr>
<tr>
<td><strong>7f.</strong></td>
<td>Ability to hold up head lost.</td>
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According to Dr. Reisberg, caregivers can more easily meet the needs of their loved ones by knowing what activities they can still manage, and what activities become increasingly difficult. Structuring activities of daily living based on functional capabilities can enhance quality of life for someone with Alzheimer’s and in turn reduce stress associated with caregiving.
Psychiatric and Behavioral Disturbances in Alzheimer’s Disease:

A number of different terms describe these features essentially they consist of a number of Psychiatric symptoms and behavioral disturbances, which occur as part of the Alzheimer’s syndrome. “Non-cognitive features” is a term used to distinguish them from the “Cognitive aspects” of Alzheimer’s – (e.g. memory loss, language disturbance).

The common disturbances are:

Psychiatric Symptoms: -

- Personality change
- Depression
- Hallucinations (Visual and Auditory)
- Paranoid ideas
- Misidentifications
- Mania

Behavioral Disturbances: -

- Aggression (Physical or Verbal)
- Agitation
- Wandering
- Sexual disinhibition
- Incontinence (Predominantly Urinary)
- Increased eating
- Screaming

Psychiatric symptoms tend to occur relatively early and behavioral disturbances occur late.

**Causes of Alzheimer’s Disease:**

The cause or causes of Alzheimer’s disease are unknown. Biological brain changes are the most likely cause of Alzheimer’s. However, Scientific research has begun to point in several directions. Neurotransmitter deficits have been implicated, with a deficiency of the neurotransmitter acetylcholine being a prominent and consistently identified deficit. Destruction of the cells that make acetylcholine is a cause or a consequence of Alzheimer’s disease. Most researchers agree that the cause may be a complex set of factors.

**Dispelling Myths about Alzheimer’s:**

- **Myth:** Memory loss is a natural part of ageing:  

  Reality: In the past, people believed memory loss was a normal part of ageing, often regarding even Alzheimer’s as natural age-related decline. Experts now recognize severe memory loss as a symptom of serious illness.
Myth: Alzheimer’s disease is hereditary: 

Reality: Rare cases of the disease-called early-onset Alzheimer’s-affect people in their 30s, 40s, and 50s. This form of the disease has been linked to three different genes and has been observed in only 120 families worldwide. Individuals who carry one of the early-onset genes will most likely develop Alzheimer’s.

The more common late-onset Alzheimer’s disease usually affects people over the age of 65. The greatest risk factor for developing late-onset Alzheimer’s is increasing age. A person also has a greater risk if he or she has an immediate parent or sibling with the disease.

Myth: Alzheimer’s disease is not fatal: 

Reality: Alzheimer’s disease is a fatal disease; it begins with the destruction of cells in regions of the brain that are important for memory. However, the eventual loss of cells in other regions of the brain leads to the failure of other essential systems in the body. Also, because many people with Alzheimer’s have other illnesses common in older age, the actual cause of death may be no single factor.

Myth: Head injury can lead to Alzheimer’s disease: 

Reality: Several studies have found that Alzheimer’s disease is more common among individuals who have sustained a severe head injury (accompanied by loss of consciousness during the course of their lives).

Myth: Drinking out of aluminum cans or cooking in aluminum pots and pans can lead to Alzheimer’s disease: 

⇒ Myth: Alzheimer’s disease is hereditary: -

⇒ Myth: Alzheimer’s disease is not fatal: -

⇒ Myth: Head injury can lead to Alzheimer’s disease: -

⇒ Myth: Drinking out of aluminum cans or cooking in aluminum pots and pans can lead to Alzheimer’s disease: -
Reality: Based on current research getting rid of aluminum cans, pots, and pans will not protect you from Alzheimer’s disease. The exact role (if any) of aluminum in Alzheimer’s disease is still being researched and debated. However, most researchers believe that not enough evidence exists to consider aluminum a risk factor for Alzheimer’s or a cause of dementia.

⇒ Myth: Aspartame causes memory loss: -

Reality: Aspartame’s role in memory loss is a health concern that has been associated with artificial sweeteners. Several studies have been conducted on aspartame’s effect on cognitive function in both animals and humans. These studies found no scientific evidence of a link between aspartame and memory loss.

“Aspartame” was approved by the US Food and Drug Administration (FDA) in 1996 for use in all foods and beverages. The Sweetener, marketed as Nutrasweet and Equal is made by joining two protein components, aspartic acid and phenylalanine, with 10 percent methanol. Methanol is widely found in fruits, vegetables, and other plant foods.

⇒ Myth: There are therapies available to stop the progression of Alzheimer’s disease.

Reality: At this time, there is no medical treatment to cure or stop the progression of Alzheimer’s disease. Four FDA-approved drugs—tacrine (cognex), donepezil (Aricept), rivastigmine (Exelon), and galantamine (Reminyl) – may temporarily improve or stabilize memory and thinking skills in some individuals.
Dementia and Alzheimer’s Disease: -

Dementia is an umbrella term for several symptoms related to a decline in thinking skills. Common symptoms include a gradual loss of memory, problems with reasoning or judgement, disorientation, difficulty in learning, loss of language skills, and decline in the ability to perform routine tasks. People with dementia also experience changes in their personalities and behavioral problems, such as agitation, anxiety, delusions (believing in a reality that does not exist), and hallucinations (seeing things that do not exist).

Progression of Alzheimer’s Disease: -

Alzheimer’s disease advances at widely different rates. The duration of the illness may often vary from 3 to 20 years. The areas of the brain that control memory and thinking skills are affected first, but as the disease progresses, cells die in other regions of the brain. Eventually, the person with Alzheimer’s will need complete care. If the individual has no other serious illness, the loss of brain function itself will cause death.

Alzheimer’s is a grossly unrecognized, under-diagnosed, ill-understood disease both by the public and professionals. Most important reason for this is ignorance, another reason is stigma. Other reasons are

- Because it happens to old people
- There is no known cure.
- Lack of facilities for giving better care and support.
Lack of awareness is the single most important reason for the neglect of this condition; unless we improve this situation the condition of those affected will continue to remain miserable. Alzheimer’s is a disability of the elderly, which cripples the affected persons both physically and mentally. Those affected should be treated on par with other handicaps and all facilities and benefits of handicapped people are made available to them.

**The National Policy on Older Persons:**

The goal of the national policy on older persons is their well being: their rights, dignity and peace. An active, creative and satisfying life becomes a reality for the elderly when they have the power to make decisions on matters that affect them. The policy hopes to help them achieve this. Special provisions for rural old and elderly women, to be achieved through state support and intervention, figures prominently in the policy. It envisages help for the elderly in major areas such as financial security, health care and nutrition, shelter, education, welfare, protection of life and property.

*The United Nations declared 1999 as the International Year of Old Persons.*

**Home Care, Institutionalization, and Rehabilitation:**

Patients afflicted by Alzheimer’s disease are, by and large, cared for by their families at home in most countries of the region. This would appear to be the ideal situation where “TLC” (Tender Loving Care) can be provided and most patients seem to benefit from such an approach.
Home care support, day care and respite care are immensely useful programs in reducing the stress and strain on caregivers. To reduce the ‘burden’ on the caregivers, the policies of national, social and health services should support a spectrum of health providers, including physiotherapists, occupational therapists, semi-skilled domestic workers, home health aides and nurses.

Families should be involved in the educational programs to enable them to communicate with patients in simple language as soothing, familiar voices and a gentle touch elicit a better response.

Dementia does not simply affect the person who has it. It profoundly changes the lives of those family members or friends who are close to that person. When someone they have loved and cared for gradually disintegrates as a person the whole relationship changes and new and unexpected demands will be placed on the career. Care giving in dementia is time consuming, frustrating and often a thankless job, which can leave the caregiver fatigued, depressed, angry and alone.

Psychosocial intervention with family members is a critical aspect of treatment. Psychoeducation is the most important component of this program. Providing information about the nature, course and prognosis of dementia help the caregivers to lower their expectations about the patient, which in turn reduces the intensity of frustration. Relatives may need to be reassured that their emotional reactions are common and that talking about them brings relief.

The great challenge of the 21st century is to improve the quality of life of all ages. In order to meet this challenge, it is essential to bring the issue of “ageing” into the development agenda of all countries. For this, a three-pronged
approach; namely income security, health security and emotional or spiritual security are required.

The wisdom and experience of the elderly have to be fully utilized. For this, an inter-generation approach should be pursued with increase role for the mass media, and educational and religious organizations. At the same time, activities of self-help and social involvement will have to be widely publicized and promoted. Appropriate mechanism are needed for engaging senior citizens in social activities that require strong support from both governmental and non-governmental organizations.