

CHAPTER I

INTRODUCTION

The Topic

Ageing is a biological process through which every human being passes. It begins at birth and ends with death. It is inevitable, irreversible and it can not be avoided. Ageing not only depends on one's genes but also on the environmental influences and the life style one follows. The physical abilities slow down but psychological and mental abilities do not deteriorate with age. Thus ageing is a state of mind which does not always keep pace with chronological age (Patel and Gandotra, 2011).

The transition from adulthood to old age is perceived as a process of loss of physical and mental well being. The biological and psychological changes are irreversible, which weaken the human ability for survival and adjustment and eventually result in death. Ageing thus brings with it many problems in one's life-both physical as well as psychological. The reduction in vitality increases one's vulnerability to diseases. These changes can not be prevented but they can be slowed down by proper diet and nutrition. One needs to participate in health education and health promotion activities designed to reduce the risk of diseases (Morley, 1977).

The psychological aspects of ageing also need to be given due importance. The role and status of the aged change as they grow old. The retirement from active work life poses several problems. The loss of productivity both financial and physical leads to decline in their status and make them feel worthless and burden to their children. The sense of loneliness increases if one loses one's spouse (Patel & Gandotra, 2011).

According to Cowdry (1942), two conflicting views are there regarding ageing in man. One considers ageing as an involuntary process which operates

cumulatively with the passage of time and is revealed in the different organ systems as inevitable modification of cell, tissues and fluids. The other view interprets the changes found in aged organs as structural alterations due to infections, toxins, traumas and nutritional disturbances of inadequacies giving rise to what are called degenerative changes and impairments. Later biologists made the definition of ageing narrower. Comfort (1956), said that senescence is a change in behaviour of the organism with age, which leads to a decreased power of survival and adjustment. According to Handler (1960), aging is the deterioration of a mature organism resulting from time dependent, essentially irreversible changes intrinsic to all member of a species, such that, with the passage of time, they become increasingly unable to cope with the stress of environment, thereby increasing the probability of death. According to Birren and Renner (1977), ageing refers to the regular changes that occur in mature, genetically representative organisms living under representative environmental conditions as they advance in chronological age. According to Phelps and Henderson (1952), "Old age is a natural and normal condition--- Its pathologies are the same as those that occur at any other age period, but they are intensified by illness, family disorganization, unemployability, reduced income and dependency". Smith (1962) defined ageing processes as those, which render the individuals most susceptible (as they grow older) to the various factors intrinsic and extrinsic, which may cause death. Timiras (1972) defined ageing as a decline in physiologic competency that inevitably increases the incidence and intensifies the effects of accidents, disease and other forms of environmental stress. According to Alex Comfort (1979), ageing is characterized by a failure to maintain homeostasis under conditions of physiological stress, and that this failure is associated with a decrease in viability and an increase in vulnerability of the individual. Biological anthropologists, Borkan and associates (1982) define ageing as, the sum of changes that occur primarily in the post reproductive period, which are the characters of an individual in a population and which as whole, decrease the functional capabilities of the organism and render death increasingly probable. Pathologist, Davidson (1984) opines that ageing comprises of those fundamental changes not due to disease occurring in individuals after maturity which are more or less common to all members of the species and which increase the probability of death. Ageing is thus the increasing inability to resist death. Biologist, Gorman (2000) says that the ageing process is of course, a biological reality which has its own dynamics, largely beyond human

control. However, it is also subject to the constructions by which each society makes sense of old age.

The whole ageing phenomenon is conveniently divided into two segments for better understanding (a) primary ageing which is intrinsic factors and related solely to the biological capabilities of the body whereas (b) secondary ageing which is brought about by various external factors like disease, nutrition, stress etc. which profoundly influence the body's own capabilities. The primary process is immutable while the secondary process can largely be changed (Kanungo et.al., 1989).

Birren and Renner (1977) describe three types of age: Biological age, Psychological age and Social age.

The biological age of an individual is an estimate of the individual's present position with respect to his potential life span. With this, one can predict whether the individual is older or younger than other persons of the same chronological age, and hence whether the individual has a longer or shorter life expectation, compared to other persons of his age.

The psychological age of an individual refers to his adaptive capacities, i.e. how well he adapts to changing environmental demands in comparison with the average of his group. This is akin to the concept of functional Age-the individual's level of capacities relative to others of his age for functioning in society.

The social age of an individual indicates the roles and social habits of an individual with respect to other members of his society. The question here is whether he behaves younger or older than what is expected of him by society or whether he behaves in a manner suitable (in the eyes of society) to his society.

Long life is a much cherished desire of men. But all people are not desired to enjoy it. Some of those who get into old enough age category fail to keep good health and thereby consider the longevity as curse. Death is an inevitable event and can occur to an individual at anytime in any form. Some life may be terminated at birth, some in early years of existence and yet some before getting to adulthood (Kanungo et. al., 1989).

Process of growth starts from the uterine, and ends around 20 years of post natal life when all linear increment of the body stops and the internal organs fully develop. Almost a decade later, a body starts loosing vital capacities gradually and it is bee hive to be the onset of ageing. Though physiological decline ensues, no visible effect of appreciable nature is noticed at least for another decade. But in many individuals there is quite visible change in the morphological characters like graying hair, fall of close visibility, loss of dentition etc. By 50 years of age various internal organs also start showing loss of efficacy and in women it is marked as 'menopause' (Kanungo et. al., 1989).

Not only the diseases but hazardous way of life, food crisis, fued and invasion etc. were notable factors responsible for reducing life span of a able bodied people in the past (Kanungo et al,1989).

The ageing is recognized as a significant problem in the developed countries where the life expectancy of the people is very high. According to United Nations report there were 350 million people above the age of 70 in the world in 1975 and this figure would cross the mark of 1000 million by 2025. In India the population of old people (60+) was around 6.5 percent in 1981 but it is expected to go up. According to UN report the total number of aged population will be 146 million by 2025 in India (Kumar and Saxena, 1989). Ageing is a phenomenon which has to be accepted. In every stage of life we have problems. Life without problem is impossible. So, it can not be said that only the aged have problems. It is true that in comparison to young or middle age the problems of aged may be more or severe. We may think otherwise that people are less prepared to face the problems of the aged.

Ageing is not a new phenomenon. But the problems that occur with ageing appear to be a product of modern age. In the context of dynamic changes taking place in the Indian society, the problems of aged have assumed more and more importance. Ancient Indian culture demands that the aged should be respected. In fact the order of prevalence in India has been mother, father, teacher and God in that order. Since time immemorial in India it is the belief that since it is duty of the parents to look after their children, it is equally incumbent upon children to look after their dependent parents. One repays one's duty to the parents and also paves one's way to salvation. But industrialization, urbanization, complexity of life and growing individualism have

changed all that. In the joint family system the young and the old, the employed and unemployed, the bread earner and the bread eaters, the kith and kin, the near relations used to live with harmony and happiness. But at present it has cracked up and the old bonds of love and respect for each other is fast disappearing. The problems of aged in India are gradually taking the shape as those in western countries where family ties and sentimental attachment have been disappearing. A wide gap separates the growing generation from decaying generation (Ramnath, 1989).

Due to improved health facilities there is an increase in the longevity of people. With the steady decline in the incidence of mortality and morbidity in most of the developed and developing countries there is an increase in the population of the elderly. With higher expectancy of life, there has been a steady rise in the aged population.

Advancing age seems to bring meaningless misery to the elderly people, mainly because the elderly have been neglected and bypassed by modern society. The aged not only suffer from chronic diseases but also from the unhappiness caused by their feelings of uselessness, loneliness and despair. It is therefore necessary to look into the various aspects of their problems like biological, social, economic and psychological.

Old people may have to adjust to a life devoid of much activity. This problem is much crucial for persons because they are to retire from their active life. Old people may have to adjust to the loss of spouse or loss of friends etc. They have a lot of free time and they do not know what to do with it and hence utilization of leisure time may be a problem for them (Ramnath, 1989).

With increase in age, there is often a gradual decline in physical strength. This of course varies with individuals. Some of the biomedical studies today have indicated the following among other things.

- (a) Morbidity and mortality do go up with age. There is greater vulnerability.
- (b) Increased incidence and severity of the three major chronic diseases like cardio-vascular problems, cancer and strokes are unquestionable.

- (c) Emphysema, rheumatism, arthritis and broken bones are also more widespread in old persons and have sometimes been neglected by physicians.
- (d) These pathologies often do exist in the last one half to one fourth of life but the bulk of deaths from these diseases is among older persons.
- (e) Age and disease are indeed frequently coincident.

On account of old age various geriatric ailments like circulatory disturbances, heart disease, metabolic disorders, visual and hearing impairment, gait disorder and mental nervous conditions are the ones that usually attack the old persons. Apart from the above geriatric ailments, diseases like colic pain, gastritis, diabetes, indigestion, asthma, rheumatism and general weakness etc. are found to be frequent among the old people due to decline in their power of resistance and other associated environmental factors (Pati and Jena, 1989).

As one grows old, their control over the finance of the family slips from them. Individuals who are retired and deprived of their main source of living may have to face many problems. Individuals who are dependent may face these problems if they became infirm or because of their increased need for medical assistance in old age. For a variety of such reasons the financial problems of old people constitute an important problem area of the aged persons.

In short there are three important problem areas. They are not independent but very much interdependent. In other words problems in one area contribute to problems of other area. To take an example if a person has a problem of failing health, he may have to face increasing medical bills and so his financial worries increases. Thus the health problem contributes to the financial problem. The failing health of an individual may make him more irritable and thus make his family members more annoyed and thus an old man may have a problem of adjustment in his family setting. If he keeps on speaking about his failing health he may have a problem of mental "illness". So the problems that an individual is required to face in old age cannot really be divided into different watertight compartments but they all are very much interdependent.

The optimum minimum age fixed for treating a person as aged varies from country to country. In India the attainment of the age of 55 has been mostly accepted

for the purpose of classifying aged persons. The census of India have accepted 55 years as the age for treating a person as 'aged' whereas in USA, U.K and other western countries it ranges from 60 to 65 years (Ramnath, 1989).

Review of literature

International

Scientific concern with gerontology has been dated by Alex Comfort to begin with Francis Bacon and his "History of Life and Death" in 1643 (Strieb and Orbach, 1968). In the first quarter of the 1800s, Quetelet (who is considered to be the first gerontologist) presented data since included as part of the psychology of ageing.

Frisch and Revelle (1969) compared the average body mass of 11 South American and Asian population of the ages of 22 and 62 years.

Sir Francis Galton who ushered in a new era in the scientific study of ageing. At the international health exhibition held at London in 1884, he measured over 9000 men and women between the ages of 5 to 80 for seventeen different characteristics, and was able to demonstrate that many characteristics show differences with age. This was one of the first major studies of life span development (Woodruff and Birren, 1968).

Noelkar and Harel (1977) tried to find out the predictors of well-being and survival of the aged. The subjects of their study were 124 aged residents in long term care. Morale, life satisfaction and expressed satisfaction with care received, were found to be some of the indicators of personal well-being. The investigators found that the residents' well being could be assessed from whether they were satisfied or not with living arrangements.

Brimmer (1977) studied the adjustment of the aged in two social settings. The subjects were 42 elderly in nursing homes, and 42 elderly in a home care set up. He examined whether the social settings and functional ability of the subjects were inter-connected. He found that elderly individuals with high functional ability had greater adjustment with home-care.

Oktay and Sheppard (1978) discuss home-health care for the elderly. They present an overview of the aged population requiring home health care and detailed picture of the development and content of such services in the U.S. They point out

how the growth of the elderly population has greatly increased the number of persons requiring long term health services.

Chatfield (1977) examined the relative importance of income, health and similar sociological factors like worker roles and family setting, to explain the life satisfaction of the aged. His sample consisted of some retired hands from Columbus, Ohio etc.

Guttman (1977) examined the impact of psycho-social variables on the decision making of the aged. The sample studied was 447 people aged 60 or more. Health, capabilities, life satisfaction, living arrangements, income, sex, education, family relations, intellectual capabilities and perceived capacities were investigated.

Borkan and Norris (1980) carried out a profile of 24 age-related physical parameters to assess biological age and found an association between physical activity and ageing. They concluded the physically active men were biologically more youthful than inactive men. Although those indicate an association between physical activity and ageing, cause and effect cannot be concluded from this cross sectional analysis, the researchers feel.

Waldron and associates (1982) studied cross-cultural variation in blood pressure among the adults in 84 groups, ratings cultural characteristics and, where available, salt consumption and BMI. The study analyzed the relationship of cross-cultural variation in blood pressure to cultural characteristics, salt consumption and body weight. Slopes of blood pressure with age were greater in groups which had greater involvement in money economy, more economic competition, more contact with people of different culture or beliefs, and more unfulfilled aspirations for a return to traditional beliefs and values.

Beall and Goldstein (1982) studied work, ageing and dependency in a Sherpa population in Nepal, suggesting a conceptual framework for the cross-cultural study of dependency in order to encourage and facilitate data-based cross-cultural comparisons that offered an operational definition encompassing biological, activity and economic components and also for understanding a situation. They found that the Sherpas were apparently healthy, economically productive and physically active, and therefore were near the independent end of the dependency continuum.

E. R. Brennan (1982), attempted a study on secular changes in age specific cause of death in Sanday Orkney Islands in Scotland by using information from death records (between 1855 and 1974). Gryglewska et.al, (1998) studied the obesity and blood pressure in the elderly free living population.

Cross sectional analysis of changes in body morphology and composition with age, a number of studies conducted in different parts of the world. Like changes in linear measurements, body circumferences and physiological factors have been recorded by Hertzog and associates (1969), Brennan (1982), Shephard (1997), Monad (1998), Stini (2000) Steegmann and Hewner (2000) etc.

Chappell et.al, (2000) studied the International Differences in Life Satisfaction among Urban-Living Elders. Compared the level and the predictors of life satisfaction among Chinese older adults living in Vancouver, Canada, and in two areas of China: Hong Kong and Shanghai. The sample was composed of persons aged 65 or older: 284 in Vancouver, 366 in Shanghai, and 231 in Hong Kong. Data were collected in face-to-face interviews lasting an average of 1 hour and 15 minutes in which the respondents were asked about chronic health conditions, level of functional ability, health symptoms, social support variables, and sources of income. Multiple regression analysis found that those living in Hong Kong showed the least satisfaction both for overall life satisfaction and for the majority of the domains. In every aspect of life satisfaction, those living in Vancouver were more satisfied than those living elsewhere. Older adults in Shanghai fell in the middle. In all of the cities, health, social support, and economic variables were predictive of life satisfaction. Overwhelmingly, these data point to the importance of location for quality of life and suggest that more research that focuses on comparisons in location is needed.

Lee (2002) studied Bone mineral density (BMD), Bone loss and Coronary calcification in older men. Dalton et al (2003) studied the waist circumference, waist-hip ratio and body mass index and their correlation with cardiovascular disease risk factors in Australian adults. Fang and Nie (2003) studied body mass index and waist circumference in association with blood pressure in adults Guangzhou residents.

Li (2004) studied subjective well being and healthy longevity among the oldest-old in China.

Sadavoy, Meier & Ong (2004) studied the barriers to access to mental health services for ethnic seniors. There is a clear need for more mental health workers from ethnic backgrounds, especially appropriately trained psychiatrists, and for upgrading the mental health service capacity of frontline agencies through training and core funding. Active community education programmes are necessary to counter stigma and improve knowledge of mental disorders and available services. Mainstream services require acceptable and appropriate entry points. Mental health services need to be flexible enough to serve changing populations and to include services specific to ethnic groups, such as providing comprehensive care for seniors

Fang (2005) studied living arrangements and care provision among the oldest old people in china, 1998-2002.

Lai (2006) studied Predictors of use of senior centers by elderly Chinese immigrants in Canada. This study examined the prevalence and predictors of use of senior centers by a random sample of 1,537 elderly Chinese immigrants in Canada. A service utilization model of Andersen and Newman (1973) was adopted as the theoretical framework to examine the predicting effects of predisposing, enabling, and need factors. The findings showed that 28.8% of the elderly Chinese immigrants reported using a senior center within the past year. Having a religion, living alone, having stronger Chinese ethnic identity and stronger social support were the significant predictors identified, as shown in the hierarchical logistic regression findings.

Dhakal (2007) studied fat partitioning and subclinical cardio-vascular disease among women in menopausal transition.

Willcox et.al, (2007) studied the Caloric restriction, the traditional Okinawan diet, and healthy aging: the diet of the world's longest-lived people and its potential impact on morbidity and life span.

Lai & Chau (2007) studied the Predictors of health service barriers for older Chinese immigrants in Canada. Elderly people from ethnic minority groups often experience different barriers in accessing health services. Earlier studies on access usually focused on types and frequency but failed to address the predictors of service barriers. This study examined access barriers to health services faced by older Chinese immigrants in Canada. Factor analysis results indicated that service barriers

were related to administrative problems in delivery, cultural incompatibility, personal attitudes, and circumstantial challenges. Stepwise multiple regression showed that predictors of barriers include female gender, being single, being an immigrant from Hong Kong, shorter length of residency in Canada, less adequate financial status, not having someone to trust and confide in, stronger identification with Chinese health beliefs, and not self-identified as Canadian. Social work interventions should strengthen support and resources for the vulnerable groups identified in the findings. Service providers should adjust service delivery to better serve elderly immigrants who still maintain strong Chinese cultural values and beliefs.

Brown (2008) studied the implications of occupational deprivation experienced by elderly female immigrants. Canada's immigration policy favours family reunification, and many elderly parents follow their adult children into new lives in Canada. In particular, the population of elderly immigrant women living with adult children is growing rapidly. To date there are few theoretical models to guide research in this area although this subgroup of immigrants has been identified as having unique characteristics that warrant urgent research attention. The limited research that exists links immigration, acculturation and communication problems with negative physical and psychological health for immigrant women. One paradigm that holds promise for understanding and responding to the health needs of older immigrant women is that of occupational science. Occupational science proposes that 'human engagement is integral to everyday living as people of all ages plan, structure and use their time doing the things they need and want to do'. Occupational deprivation is a sub construct of occupational science and refers to situations in which people's needs for meaningful and health-promoting occupations go unmet or are institutionally denied. Currently we do not understand the impact of occupational deprivation on the health of older immigrant women and how this influences their healthcare utilization. It is probable that the needs of this unique, and growing, group of elderly women have important implications for health planning and resource utilization that are only just beginning to be recognized.

Chen (2010) studied the theoretical study of the impact of marital quality on health and care giving cost of Chinese elderly.

Lai (2010) studied the Filial Piety, Care giving Appraisal, and Care giving Burden. This study examined the effects of filial piety on the appraisal of care giving burden by Chinese-Canadian family caregivers. A quantitative telephone survey was

used as the research design for this study. A total of 339 randomly selected Canadian-Chinese family caregivers of elderly were interviewed by telephone. A hypothesized model denoting both the direct and indirect effects of filial piety on care giving burden was tested using structural equation modeling. While stressors and appraisal factors reported direct predicting effects on care giving burden, filial piety indirectly affected care giving burden by altering appraisals of the caregiver role. Filial piety served as a protective function to reduce the negative effects of stressors and to enhance the positive effect of appraisal factors on care giving burden.

National

The initiation of researchers in the field of ageing and aged were started in the late sixties by a few psychologists, sociologists, and medical and biological scientists. For the first time some enthusiastic social scientists started publication of 'Indian Journal of Gerontology' at Jaipur (Rajasthan) in the late sixties to cover the studies of ageing population in rural and urban setting.

Joshi (1971) conducted a study on the medical problems of old age. He states that differential ageing phenomena both physical and mental appear to depend on environmental and social factors such as diet, type of education, occupation, adjustment to family, professional life and consumption of tobacco and alcohol. The result show that the elderly persons suffer from ineffective and parasitic diseases, diseases of respiratory system, symptoms of arthritis and rheumatism, hypertension, congestion, heart failure and diabetes mellitus.

Raj and Prasad (1971) conducted survey of 327 aged persons over 50 years of age belonging to 219 families from 3 villages in Lucknow district (U.P.). Family organization, occupation, marital and socio-economic status, personal habits and addiction, dependency and status of the aged persons in their family, living arrangement, disabilities and diseases and attitudes towards life were investigated. The results show that 66.9 percent of the cases were leading from poor to very poor economic life. 52.2 percent still held the position of head of the family, 88 percent were suffering from various disabilities such as blindness, and deafness, and paralysis of lower limbs, and 31.3 percent were found depressed because of death of spouse of children infirmity crop failure indebtedness.

Sinha (1971) studied the loneliness in the old man, and has emphasized the fear of death due to psychological deterioration. The psychological implications have been discussed due to changes in social status associated with old age, compulsory retirement, loss of status, occupation, income socio-economic, and family status consequent to the weakening of joint family ties.

Purohit and Sharma (1972) made a study of old persons in a group of villages in Rajasthan and found that 66% of the aged were dependents and the incidence of dependency living higher in the higher age group. The main cause of dependency were the in cap citation and disabilities among the aged. The proportion of unhappy elderly were found to be higher among the females & the unhappiness increased with increase in age. Purohit and Sharma (1976) again studied the General Health Status of Persons Aged 60 years and above in Rural Health Training Centre, Area Naila. Ramamurti (1979) studied certain socio-economic variables related to adjustment in Ageing.

Bhatia in 1983 conducted study on the retired gazetted and non-gazetted officers of Udaipur. Desai and Naik (1983) made a study of the problems of the retired people in greater Bombay and ranked financial problems as their number one problem followed by health, social and family problems.

Channa and Talwar (1986) studied the "Implications of Demographic Goals in 2000 AD for the Aging Population in India",.

Usha Rani et.al., (1989) studied old age security and utility of children in rural areas of Chittor district in Andhra Pradesh, Mathur and Sen (1989) have studied the Depression in the Elderly and Some of its Psychological Concomitants only; A study of the Efficacy of Age Care Center.

A study on "Ageing and Social Economics, Health Status of the of the Elderly in Asia" carried out by Nair (1992) in rural Karnataka which represents the typical, traditional Hindu dominant village in India. He concluded that the low capita income results in a sizeable proportion of the elderly not to have any independent source of income. The economic dependency of the elderly females was accentuated due to their widowhood. The incidence and prevalence of chronic as well as non-chronic diseases was high among elderly. The major chronic diseases reported in the study

were respiratory, locomotor, illnesses and high blood pressure. The researcher concluded that the health related problems were relevant in the context of reduction in family size, nuclearisation of families, and erosion of kinship ties.

A study of women in old age homes of Pune was conducted on older women living in three homes for the elderly catering to middle class Brahmin women in the age ranging from 50 to 96 years by Bagga (1993). Information relating to their education, occupation (pre-retirement) economic status, number and sex of children, whether living or dead, or migrated, was collected. It was concluded that majority of women in these homes came from smaller families and were there because either they were widows or barren or both. Children, if living, had migrated or the respondent had daughters only. Depression was more common in the under-engaged group contrary to the others who were more active and alert. Ramamurti (1996) studied the Health behavior among the Elderly. Shah and Prabhakar (1997) studied the chronic morbidity profile among elderly. Kumar's (2000) work on age related disorders and disabilities dwelt on the different age specific disorders. Channa and Talwar (2000) studied the Ageing in India: Its Socio-economic and Health Implications. In their studies said that the occurrence of physical disabilities is another important aspect of the ageing process.

Dey et.al, (2001) studied the Evaluation of the health and functional status of older Indians as a prelude to the development of a health programme.

Bagga (2002) also explored the impact of some socio-demographic factors and deteriorating health conditions on mental health of the elderly. According to him socio-cultural factors such as widowhood, reduced or no income, educational level, death or migrations of children and living arrangements adversely affected the mental health as compared to single or widowed. Living arrangements were one of the most important factors affecting the mental health of the old. The old, living with distant relatives or non-relatives suffered the most as could be observed from the mental health gradient. In physical health, falling attacks, urinary incontinence and arthritis showed the highest impact on mental health of the subjects pushing them to the wrong end of the gradient of neuroticism. Women belonging to upper middle class families and those having some personal income or financial security, maintained better

mental health as compared to women from lower middle class and those with no regular source of income.

Dey et.al, (2002) studied BMI and waist circumference and the relative risk factor for stroke in older people. The result shows that higher BMI and high waist circumference are risks for stroke in older men but not the older women.

Sinha (2002) studied the Life of the elderly in a Rajasthan village.

Reddy et.al, (2002) studied the Differences in body mass index and waist: hip ratios in North Indian rural and urban populations. Hazarika et. al, (2003) studied the Hypertension in the elderly population of Assam.

Devi and Bagga (2006) studied the manifestations of physical health conditions and morphological age changes in older Metei women of Manipur and Assam. The effects of migration and urbanization, particularly an older women's physical health and their physical attributes are the highlights of the study. Medhi et.al, (2006) studied the Health Problems and Disability of Elderly Individuals in Two Population Group from Same Geographical Location.

Sarma (2006) studied the aged in Assamese society specially the bio-social aspects of ageing in the urban context of Guwahati. Majumdar and Saha (2007) studied ageing in North East India in Tripura perspectives. Lianzela and Vanlalchhawna (2007) studied ageing in North East India, Magnitude of the Problems of Elderly persons in Mizoram. Nayak (2007) studied the Geographical Perspective on the trends and patterns in ageing in India with a Special Reference to Northeastern Region. Arokiasamy (2010) studied Longitudinal Ageing in India. Kujur and Ekka (2010) studied the Socio-economic status of the elderly.

Survey area

Barpeta was one of the sub-division of the old Kamrup district. The erstwhile Barpeta sub-division was created nearly hundred years ago and it had been given the status of a district on 1st July, 1983 .Barpeta town is situated in the North-West of Guwahati at about 100 kilometers away by the shortest motor able route (Hajo-Doulasal) from Guwahati and 140 kilometers by 31 national high way. The national highway 31 runs at a distance of 10 km away to the Barpeta town and the Barpeta

Road Railway station is situated at a distance of about 21k.m towards the North. In Barpeta district (2011) the total population is 16,93,190 and out of the number of male is 8,67,891 and total number of female is 8,25,299. The sex ratio (females per 1000) is 951 and decadal growth rate is 21.40%. The population density (per square kilometer) is 632. In Barpeta district total literacy rate is 65.03% and out of them 70.72% are males and 59.04% are females (Census of India, 2011).

The Barpeta District is rich in cultural art forms. The great cultural ambassador Srimanta Sankardeva contributed a great deal in creating different art forms that became integral part of Assamese culture. 92% people of Barpeta live in villages and 76.2% peoples are associated with agricultural activities, others are engaged in business, service etc.

Barpeta town is known as Satranagari. A good number of Satras was founded by these great saints that are considered regio-cultural institutions or monasteries that created deep impact in the society, politics, economy etc. created deep impact in the region. Although the Satra institutions were established for the propagation of Vaishnavite faith but with passage of time these institutions gradually transformed into open universities to become all embracing socio-culture centers covering numerous subjects including education, music, dance, sculpture, drama, fine-art, ivory-works etc. Some of the important Satras are- Patbaushi, Ganak kuchi, Jania, Sundaridia, Barpeta, Baradi and Kanara.

Barpeta is the traditional home of Vaishnavite art and culture. The great Assamese renaissance figure and reformer Mahapurush Srimanta Sankardeva laid the foundation of Assamese culture and heritage in and around the district. He established famous Vaishnavite temple-satra at Patbausi. Mahapurush Shri Madhavdeva established the famous Vaishnavite temple- Barpeta Satra in this town in the 15th century (1583). Subsequently the great saints disciples namely Haridev, Damodardev and their devotees followed the good-works of the great figures.

Settlement pattern

The Kaibartas are living in the low land areas. The houses are built on both sides of the roads. There is no courtyard in their houses. Most of the houses are congested and there is no open space between two houses.

House type

The people of study area are living mainly in Assam type houses with C.I. sheet roof and thatch roof. A few R.C.C. type houses are there. R.C.C. houses and most of the C.I. roofed houses are with pucca floor while the thatch roofed houses are with kutcha floor. Some people of below poverty line got Assam type houses under the Government scheme called “Indira Awas Jyोजना”.

Source of drinking water

In the survey areas most of the families have own tube-well for drinking water. For bathing and washing their clothes some of the families use the water of river *Nakhanda*, which is near to the areas and they procure drinking water from the families who have tube-wells.

Sanitation

The sanitation of the study area is not at all good, still 38.5% families use open space for nature’s call. 46.1% use kutcha pit latrines and only 15.4% have sanitary type of latrines. The drainage system of the survey area is not so systematic and water does not flow easily from the areas. This makes the areas dirty and unhygienic.

Medical facilities

The Fakhruddin Ali Ahmed Medical College and Hospital (FAAMCH) was established in 11th February, 2006 and it is located at Jotigaon, Jania Road, Barpeta. Before the FAAMCH, the Barpeta Civil Hospital is in the Barpeta town, but after the establishment of medical college & hospital the Barpeta civil hospital is shifted in the Kalgachia, which is at a distance of 47 kilometers from Barpeta town. FAAMCH is situated at a distance of 3-4 kilometer away from the survey areas. The Kaibartas avail medical facilities from this hospital. The hospital is 500 bedded and it is currently running both OPD (out-patient department) and indoor patient services. OPD department like Medicines, Surgery, Obstetrics and Gynaecology, Paediatrics, Orthopaedics, ENT, Dermatology, Psychiatry, and Dentistry are there. Facilities for different types of clinical tests like radiological tests, hematological tests, immunological tests, cytological tests, microbiological tests, gastrointestinal tests are available in the medical college & hospital. Besides the FAAMCH, there is a private nursing home and some private clinics are there in the Barpeta town. For any kind of disease the Kaibartas prefer or go to the FAAMCH. 1 Civil Hospital, 5 Community

Health Care Centres; 9 P.H.Cs including M.C.H facilities; 28 Mini PHCs; 8 Dispensaries; 3 TB and Chest Clinic Centres; 6 Leprosy Centres; 264 Sub-Centre and 4 Subsidiary Health Centres are there in the Barpeta district as a whole.

The people

The Kaibarta

The total population of Assam in 2001 is 26,655,528 of them 1,825,949 persons are scheduled castes (SCs), constituting 6.9 percent of the total population of the state. The state has registered 10 percent decadal growth of Scheduled Caste population in 1991-2001. There are sixteen (16) notified Scheduled Castes and all of them have been enumerated in 2001 census. Kaibarta (31.8%) and Namasudra (30.4%) are the two major Scheduled Castes in the state sharing more than half of the total population. Patni (8.3%), Jhalo(4.2%), Muchi (3.9%), Sutradhar (3.4%), Bhuinmali (3.2%), Hira (3.0%), Dhupi (2.7%), Brittrial Bania (2.6%) and Jalkeot (1.3%) also have sizeable population in the state.

As per 1971 census the fisherman are the largest group among the Scheduled Caste people of Assam .They constitute 82.17% of the total Scheduled Caste population of Assam .The fisherman of Assam comprise of six sub-castes viz.- Namasundras, Kaibartas, Jhalo-Malo, Patni, Jalkeot and partially the Hira and most of them are actual fisherman i.e. near about 60%(47,600). Irrespective of male and female, the industrious and hardworking community of fisherman have always sacrificed their labour for the greater interest of society, procuring a major food (fish) for major community .Yet the socio-economic condition of fisherman has gone-down to such an extent that unless some positive and concrete steps are taken, the community is bound to face the worst disaster.

In this context, a systematic study of backwardness of the Scheduled Caste fisherman is an imperative necessity to sustain the living standard of fisherman and raise the national income of the country.

Opinions differ regarding the origin of the term Kaibarta .In Assam this term is used mainly to indicate the people whose main profession is fish trade .The Doms and Nadiyals also come within the fold of the Kaibartas .William Robinson traces Kaibarta origin among the Keots who are no longer treated as Kaibarts .The Nadiyals or Doms are on the whole the most numerous tribe in Assam. They originally

emigrated from Bengal .Their original employment is that of fisherman .There are a good many keots who call themselves Kaibartas .They are divided into several classes ,the two main are called Halowa Keots and Jalowa keots .The former class is chiefly cultivators .They retain the worship of God Krishna .The Jalowa Keots are fisherman by profession (William, 1975).

Although Doms and Nadiyals of Assam are categorized as Kaibartas, yet traditionally there are clear cut distinctions between the Kaibartas and Keots on one hand and Doms and Nadiyals on the other hand. B.C. Allen observes, “The names Keot and Kaibartas are used more or less indiscriminately for the same cast in Assam .Owing to the comparative scarcity of the higher castes, the cultivating Keots occupy higher position in this province than in Bengal ,but some of them have taken to styling themselves Mahisya Vaishya as they resent the attempt on the Nadiyals or Doms to assume the name Kaibarta .The Nadiyals or Doms are fishing caste in Assam” (Allen and Gait, 1984).

The term Kaibarta has got currency for the fishing communities like Doms ,Nadiyals and Jalowa Keot .In the early writing of the historians and ethnographers serious attempt was made to trace the origin of the Kaibartas .Risely however ,has provided us with some useful information “There seems to be good grounds for the beliefs that the Kaibartas were among the earliest inhabitants of Bengal and occupied a commanding position .Many centuries ago five separate prince Doms-Jamralipta of Jamluk, Balisita, Turka, Sijamute, and Kutabpur are said to have been founded by them in the Midanpur district and it is perhaps not unreasonable to infer from its traditions that part of the country must have been one of the earliest seats of the tribe .The simplest explanations of the relation between the Kaibartas and the Keots appears then the both to one and the same tribe but that the branch which settled in Bihar gradually become endogamous and adopted a Hindu name” (Risely, 1891).

Risely traces the origin of the Kaibartas in Bengal. He mentions a legend to substantiate his findings. “There was a powerful tribe called Kewats who were raised to the status of Sudra by Ballal Sen conferring on them the title of Kaibarta in return for their undertaking to abandon their original profession of fishing”(Risely, 1891). The internal structure of the Kaibartas varies from place to place .Thus in Central Bengal and Maldoh the cultivating groups are called ‘Halik’ or ‘Chasa’ while the

fishing groups are designated as 'Jalik' or 'Jalwal' or 'Jalia'. Rarely further mention that in areas like Bakarganj, the cultivating Kaibartas have various names such as Halia Das, Parasara Das, or Chasi Kaibarta while the fishing Kaibartas are referred to simply as Kaibartas (Assam Institute of Research for Tribal and Scheduled Castes).

Assamese Scholar like Lakshminath Bezbarua, Rai Bahadur Kanaklal Barua and Rajmohan Nath made some attempts to trace the origin of the Kaibartas. According to Bezbarua and Kanaklal Barua, the Kaibartas were Dravidian (Publication Board, Assam, Guwahati). It appears the Kaibartas of Assam in those days were insignificant in numbers and in latter years their number inflated with the wholesale inclusion of the Doms and Nadiyals into the fold of the Kaibartas. Gunabhiram Barua in his Assam Buranji (Barua, 1884) mentions that Keots also came within the fold of the Kaibartas.

Doms are living in Assam since a long time. Catching and selling fish, boat making & plying etc. are their main professions. Now they are engaging themselves in agriculture and other trades. In trade and commerce they are considered as inferior caste. There is no definite source about the origin of the word Dom. The Doms of other parts of North India is a very low caste (Assam Institute of Research for Tribal and Scheduled Castes).

India is an under developed country. For removing its economic backwardness, India Govt. has adopted various measures of economic planning after independence. The fundamental objective of planning is to accelerate the socio-economic development of the country by bringing about an optimum utilization of its resources, so that the masses can have reasonably high standard of well-being.

The Directive Principles embodied in the Indian Constitution aim at creating a society in which all have the right to be provided with work and where there is no exploitation of the economically weak by the strong and where disparities in income and wealth have been reduced to the minimum. It is the purpose of economics of a welfare state like India to translate these noble objectives into reality.

But despite various measures, development programme and schemes taken by the Government under different plans for the upliftment of the poor and backward

communities including Scheduled Castes Scheduled Tribes, the improvement of the living standard of these communities has not been achieved so far.

Scheduled Caste population, 2001 census

Name of the Schedule Castes	Total population	Proportion to the total SCs population
All Schedule Castes	1,825,949	100.0 %
Bansphor	14,760	0.8
Bhuinmali	57,974	3.2
Brittial Bania	47,974	2.6
Dhupi	49,929	2.7
Dugla	6,364	0.3
Hira	55,106	3.0
Jalkeot	23,511	1.3
Jhalo	77,533	4.2
Kaibarta	5,81,559	31.8
Lal begi	552	0.0
Mahara	1,725	0.1
Mehtar	12,715	0.7
Muchi	70,954	3.9
Namasudra	5,55,621	30.4
Patni	1,51,992	8.3
Sutradhar	62,032	3.4

(Source: Office of the Registrar General, India)

Among the districts, Cachar (14.4%), Karimganj (13.0%), Morigaon (12.9%), Hailakandi (10.9%), and Bongaigaon (10.3%) are the main concentrated districts in Assam, each having more than 10 percent Scheduled Caste population.

According to 2001 census, 85 percent of the Schedule Castes are living in rural areas. There is wide variation with regard to their rural-urban distribution of population. A high of 27.9 percent urban population has been recorded among Dhupi, followed by Brittial Bania with 23.3 percent. On the contrary, Patni has recorded the

lowest of 7.3 percent urban populations. Namasudra, Hira, Muchi and Kaibarta are pre dominantly residing in rural areas having more than 85 percent rural population

The sex ratio of total Schedule Caste population is 935 which is very close to the national average for SCs (936). Of the eleven major SCs low sex ratio has been registered among Muchi (916), Dhupi (920), Jhalo (923), Jalkeot (923), Patni (924) and Namasudra (924). It is higher than the national average among Hira (966), Kaibarta (955), Brittial Bania (951), Sutradhar (938) and Bhuinmali (937).

The literacy rate among the SCs is 66.8 percent which is above the aggregated national figure for SCs (54.7%). Having male and female literacy rate of 75.7 percent and 57.1 percent respectively, the gender gap in literacy is quite conspicuous (censusindia.gov.in/Tables Published/SCST/dh_sc_assam.pdf).

Literacy rate among the major Schedule Castes

Literacy rate (7yrs and above)

Name of the Schedule Castes	Total	Male	Female
All SCs	66.8	75.7	57.1
Bhuinmali	72.2	79.8	64.0
Brittial Bania	81.0	88.6	73.0
Dhupi	76.0	83.1	68.3
Hira	72.5	82.7	61.8
Jalkeot	69.3	78.9	58.8
Jhalo	52.8	64.3	40.3
Kaibarta	72.1	80.5	63.3
Muchi	47.9	60.4	34.2
Namasudra	60.2	70.1	49.4
Patni	75.9	81.5	69.9
Sutradhar	67.2	76.6	57.2

(Source: Office of the Registrar General, India)

Kaibartas of the present study

The Kaibartas of the present study were originally engaged in fishing business. Fishing was the main occupation of them, but at present due to lack of availability of fish in the area most of them are diverted into other occupations like petty jobs, shop

keeping, thela-rickshaw pulling, daily labour, business, begging etc. only a few of them are engaged in their caste based occupation. Kaibartas used to do fishing in a local lake (beel) called “Golia beel” and in the ponds of Reserve areas which are about 8 to 10 kilometers away from their residence. But now a days the Bengali speaking Muslims have occupied these areas. Though some of the Kaibartas are engaged or continuing their caste based occupation yet their economic condition is not good at all. In the rainy seasons they are busy in fishing and in the other times they buy fishes from nearby market situated in Mandia (10 kilometers away from study areas), Keotpara (7 to 8 kilometers away from study areas), and Barpeta Road (21 kilometers away from the study areas) and sell it in the markets of Barpeta town and its neighbouring areas. Now the fishing business is dominated mainly by the Bengali speaking Muslims. In addition to this the new generation is not interested in their caste based occupation. They prefer to be a labourer or rickshaw-thela puller instead of being a fisherman. The literacy rate of the study area is 83.88% and for male it is 85.2% and for female it is 54.0%. Economically they are not at all sound. Mostly they are engaged in daily labourer, petty business or in petty service. Like other people of Barpeta they are followers of “Eka Sarana Nam Dharma” (faith is single God) of Sri Sri Sankardeva.

Sample

For the present study data from 250 males and 250 females have been collected at random basis. The males are of 55 years and above of 55 years of present age and the females are of 50 years and above 50 years of present age

Aims and objectives

The aims and objectives of the present study are-

1. To study the demographic and socio-economic background of the aged person.
2. To study the biological health of the aged persons and the various types of major and minor diseases suffered by the aged persons.
3. To see the impact of social factors on the health and disease of the individuals.
4. To see the impact of psychological factors on the health and disease of the people.
5. To see the nutrition status of the aged persons.
6. To study the nature of treatment of the diseased persons.

Methods of data collection

Various methods were applied to collect the data for the present study. With the help of preliminary census survey schedule, house to house survey was conducted to collect information on demographic and socio-economic background of the studied population. In the next stage families having aged males of 55 years and above 55 years and females of 50 years and above 50 years of age were selected for collecting data on health and disease. Face to face interview with previously prepared schedule was the primary method of data collection. Both aged males and females were interviewed. Their sons and daughters were also interviewed whenever necessary. Direct observation method was also applied. After the completion of data collection It is analyzed using proper statistical methods and presented in tabular forms. Along with the tables the graphic presentations are also given. Data for the present study are mainly primary and secondary data are also collected from different libraries and other reliable sources.

Period of data collection

The data for the present study were collect from July 2007 to December, 2009.

Statistical consideration

Frequency distribution, percentage, mean, standard error, standard deviation are the statistical considerations of the present study.