Selected Books

1. Demographic Change: Health Inequality and Human Development in India
2. Mortality and Fertility Transition in Kerala: A Historical Investigation
3. Fertility Transition in South India
4. India’s Demographic Transition: A Reassessment
5. Infant and Child Mortality in India: District Level Estimates
17th BIENNIAL CONFERENCE OF ASSOCIATION OF GERONTOLOGY INDIA (AGI)

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INTERNATIONAL CONFERENCE ON ENGAGING AND EMPOWERING THE ELDERLY (ICEEE, 2014)

SEPTEMBER 15 & 16, 2014

CENTRE FOR DEVELOPMENT STUDIES
THIRUVANANTHAPURAM, KERALA, INDIA
MESSAGE FROM THE PRESIDENT

Dear Friends,

I have been associated with CDS since 1987, and it has been instrumental in facilitating my research on population, aging, migration and development related issues. Professor T N Krishnan, then director assigned my first job at the CDS to facilitate the project on aging in Kerala with Leela Gulati, funded by the United Nations Fund for Population Activities, New York. Based on the study, I published my first paper, ‘Aging in Kerala: One more Population Problem?’ in the Asia Pacific Population Journal in 1989, almost 25 years back.

Professor P S George, then Director, requested me to undertake a project on aging in India for the Economic and Social Commission for Asia and Pacific, United Nations, Bangkok, based on my earlier work. I did the project with U S Mishra and P S Sarma and published the book, ‘India’s Elderly: Burden or Challenge’ (Sage Publications, 1999).

In 2000, I coordinated a major project on Social Security for the Elderly in India, Sri Lanka and Bangladesh and then edited the book, “Social Security for Elderly in South Asia (Routledge, 2007). In the interim, I also edited another book, An Aging India: Perspectives, Prospects and Policies (Routledge, 2003) with Phoebe S Liebig. With the success of the South Asian project, I coordinated another project funded by the Indo-Dutch Program on Alternatives in Development through the Indian Council for Social Science Research, New Delhi, with partners from Sri Lanka (Myrtle Perera, Sri Lanka Centre for Development Studies) and the Netherlands (Carla Rissweeuw, University of Leiden) and published a book, ‘Institutional Provisions and Care for the Aged: Perspectives from Asia and Europe’ (Anthem Press, 2008). I then did a project on aging with Shanthi Johnson, University of Regina, with funding from Shastri Indo-Canadian Institute and Canadian Institute of Health Research, and published a book, Population Aging and Health in India (Rawat, 2010).

Currently, I am working on a major project (with U S Mishra) on impact of migration on the elderly for the Government of Kerala, United Nations Fund for Population Activities and the Institute for Social and Economic Change and the results are presented at the AGI seminar.

CDS as an institution has contributed immensely on aging research in India and abroad with global partners and researchers in the field. I would like to place on record my thanks to the former Directors of CDS - T.N. Krishnan, P.S. George, Chandan Mukherjee, K.P. Kannan, K.N. Nair, Pulapare Balakrishan - and now Amit Shovon Ray for their unconditional support towards my research at CDS over the past 27 years.

As the president of AGI, I am pleased to organize the 17th Biennial conference of Association of Gerontology (AGI) with the support of Professor R Maruthakutti (Organizing Secretary). I am also grateful to the Executive Committee of the AGI, for nominating me as the President of the AGI and their constant support in organising the seminar.

I would also like to acknowledge the financial and other support received from Help Age India, United Nations Fund for Population Activities, Ministry of Social Justice and Empowerment and Ministry of Rural Development, Government of India, Indian Council for Medical Research and the Centre for Gerontological Studies.

S Irudaya Rajan
Professor and President, AGI
Ministry of Social Justice and Empowerment, Govt. of India

Ministry of Rural Development, Govt. of India

Centre for Gerontological Studies
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EMPOWERING AND ENGAGING SENIOR CITIZENS

K. R. Gangadharan
Heritage Medical Centre, Hyderabad

Demographic and epidemiological shifts, combined with increasing urbanization, modernization and rural-to-urban and international migration, profoundly affect family structures, provision of health and long-term care, work and retirement patterns and financial security. The tradition of caring for elderly persons is disappearing and now families are nuclear in nature. Frailty, disability, isolation, financial circumstances or social attitudes lead to elderly persons having limited choices.

Empowerment of senior citizens represents privileges - the ability to make informed choices, exercise influence, continue to make contributions in a variety of settings and take advantage of services. Poverty among elderly persons exacerbates social marginalization, contributes to poor health and mental health and erodes the ability to live and function both independently and interdependently - factors related to quality of life. Engaging in voluntary work in old age predicts better self-rated health, functioning, physical activity and life satisfaction besides decreasing depression, hypertension and mortality. Participation in religious activities is associated with better quality of life. Mobility facilitates access to services.

Intergenerational activities can encourage senior citizens serve as mentors and younger generations tutor them in turn in computer skills.

Unresponsive or controlling family members or the community or “Nothing more that can be done” messages are some challenges in empowering elderly persons. Individual leadership with vision, wisdom and charisma can inspire collective action. Involvement in decision-making within their families or in communities would lead to a sense of accomplishment and self-worth.

RISING TO THE CHALLENGE: MAKING A CASE FOR FALLS PREVENTION AND ACTIVE AGING

Shanthi Johnson
University of Regina, Canada

Around the world, the proportion of elderly is increasing rapidly. Along with the population aging, a concurrent demographic trend observed is the feminization of aging. Women far outnumber men among the elderly due to differential mortality trends between the sexes, and women make up the majority of older persons all over the world. Among the increasingly aging populations seen around the world, research shows that falls and injuries are common, involve complex array of determinants and are costly from active aging and economic perspectives. This presentation will highlight the need for intersectoral and interdisciplinary action for program and policy options to promote active aging and to prevent falls.
LIVING IN DIGNITY – EMPOWERING ELDERLY THROUGH LIVELIHOODS & SOCIAL PROTECTION

Biju Mathew
HelpAge India, India

The Elderly in India are an invisible work force. While it is generally presumed that they are unproductive it can be said that it is only an assumption. The older population of India, which was 56.7 million in 1991, was 72 million in 2001 and is expected to grow to 137 million by 2021. The data on old age dependency ratio is slowly increasing in both rural and urban areas. Both for men and women, this figure is quite higher in rural areas when compared with that of urban areas.

Over the last eight years, HelpAge India have been honing a unique strategy and working towards two parallel outcomes: better preparedness for old age and sound coping mechanism. At the core of this strategy is the Elders Self Help Group (ESHG) approach, which not only encourages savings and inter-loaning (the micro-credit platform) but also serves as a tool for social inclusion, protection from abuse and Community Social Responsibility.

Variety of income generation activities improves the self-esteem of the elders and gets them respect from others. Once the group starts with a seed amount, weekly meets and networking follow. After a year the group saves enough money to support livelihood activities of the needy. From a ‘recipient mode’ they have grown into a ‘provider mode’ wherein elderly take care of their peers in the community, especially the disabled and the poor. These groups are federated at Village and District level and it works as a deeply empowering intervention.

SECURING THE HEALTH CARE CONCERNS OF AN AGEING POPULATION:
VARIOUS OPTIONS

A B Dey
All India Institute of Medical Sciences, New Delhi

Limited access to state resources, poverty and risk of abuse render older people vulnerable in most societies irrespective of the level of socioeconomic development. Older women share most of the concerns of older men such as economic insecurity, isolation and emotional deprivation, lack of shelter and space. In this socio-economic scenario poor health and functionality; and lack of access to affordable health services can be additional disadvantage. Older people traditionally have huge burden of non-communicable diseases and may in addition suffer from acute communicable diseases and accidents and injuries. It was accepted in the early part of twenty first century that the state run health systems were not in a position to address common health concerns of Indian population. This led to launching various health programmes by the union government.

Private sector health services are major source of health care in India. It is now generally accepted that older patients are also now depending on private sector for health care. It has been observed that private health care providers have also realized the changing scenario and getting themselves well equipped in knowledge and skill to provide quality health care to the ageing population. There is need for debate in addressing these fundamental issues in old age care and redefining the roles of each sector with innovative policy and programme development.
IDENTIFICATION OF SERUM SIRTUINS AS NOVEL NON-INVASIVE PROTEIN MARKERS FOR FRAILTY

Sharmistha Dey, R Kumar, Navinath Mohan AD Upadhyay, A P Singh, V Sahu, SN Dwivedi and A B Dey
All India Institute of Medical Sciences, New Delhi

Frailty has emerged as a major health issue among older patients. Activation of sirtuins, a conserved family of NAD-dependent proteins, is one of the many mimics of calorie restriction which improves lifespan and health in experimental animals. In this cross sectional study, association of serum sirtuin concentration was assessed in frail and non-frail older subjects with an objective of examining it as a marker of frailty in old age.

Serum SIRT1, SIRT2 and SIRT3 were estimated by Surface Plasmon Resonance (SPR) and Western Blot in 119 (59.5%) non-frail and 81 (40.5%) frail individuals, diagnosed by Fried’s criteria.

Result: Mean (±SD) SIRT1 (non frail - 4.67 ± 0.48 ng/μl; frail - 3.72 ± 0.48 ng/μl; p<0.0001), SIRT2 (non frail - 15.18 ± 2.94 ng/μl; frail - 14.19 ± 2.66 ng/μl; p=0.016) and SIRT3 (non frail - 7.72 ± 1.84 ng/μl; frail - 6.12 ± 0.97 ng/μl; p<0.0001) levels were significantly lower among frail patients compared to the non frail. In multivariable regression analysis, lower sirtuins level were significantly associated with frailty after adjusting age, gender, diabetes mellitus, hypertension, cognitive status (MMSE score) and number of co-morbidities. For detecting the optimum diagnostic cut-off value a ROC analysis was carried out. The area under curve for SIRT1 was 0.9037 (cutoff- 4.29 ng/μl; sensitivity-81.48%; specificity-79.83%) and SIRT3 was 0.7988 (cutoff- 6.61 ng/μl; sensitivity-70.37%; specificity-70.59%).

The present study shows that lower circulating SIRT1 and SIRT3 levels can be distinctive marker of frailty.

HEALTH STATUS OF ELDERLY IN INDIA AND CHINA: EMERGING ISSUES

U V Somayajulu and Tilak Mukherji
Sigma, New Delhi

The population of elderly is increasing in terms of proportion and absolute number as well. In view of the kind of health concerns the elderly have, it is important to understand the health status of the elderly. An attempt is made in this paper to assess the health status of the elderly in terms of healthy life expectancy, disease burden, composite health score etc in India and China.

WHO (2008) defined Healthy Life Expectancy (HALE), as the number of healthy years, free from disability, that a person can expect to live given the current trends in deaths and diseases. According to the WHO estimates of HALE at birth for both sexes combined, China and India recorded HALE of 67 years and 60 years respectively.

The estimates indicate that 44% of the total burden of disease in China in 2004 was from people aged 45+ years, and this is projected to increase to over 65% by 2030 (Chatterji, et al., 2008). India recorded 26% for 2004 which is expected to rise to 46% by 2030.

The mean health score for both sexes combined was 53.1 in India and 68.1 in China. Men had higher health scores than women and urban residents had higher score than their rural counterparts. As expected the health score was negatively associated with age.

The analysis indicates the need for strengthening of the health care services to cater to the needs of the elderly.
LEISURE ACTIVITIES, SUBJECTIVE HEALTH AND COGNITIVE TEST PERFORMANCE OF THE ELDERLY IN INDIA

Pawan Kumar, Alok Kumar, A.K. Joshi
Banaras Hindu University, Varanasi

Lesser involvement in leisure activities often leads to self-conception of poor health and mental morbidity in the elderly. Present study investigated the factors impacting leisure participation among the elderly belonging to the rural settings of Uttar Pradesh, a northern state and of Kerala, a southern state in India.

Present study is based on a sample of 998 individuals, aged 60 years and more from the rural settings of Uttar Pradesh and Kerala of India. The sample was drawn by applying multi-stage random sampling technique. Semi-structured in-person interview schedule were administered to assess their demographic characteristics, general self-rated health status, and leisure participation. A Hindi and Malayalam version of Mini Mental State Examination were administered in Uttar Pradesh and Kerala, respectively.

Results based on empirical data reveals that leisure activities like watching T.V., reading, physical and spiritual activities are significantly associated with cognitive test performance of the elderly. Age and marital status were significantly associated with subjective health and cognitive test performance of the elderly.

It is apparent from present study that useful leisure activities enhance general as well as cognitive health, although socio-demographic factors also play a significant role to determine leisure activities of the elderly.

THE RELATIONSHIP BETWEEN LEISURE ACTIVITIES AND QUALITY OF LIFE OF THE ELDERLY IN INDIA

Garima Kumari and Arvind K. Joshi
Banaras Hindu University, Varanasi

Engagement in meaningful leisure activities improves life satisfaction and quality of life of the elderly. They influence people from childhood to old age through recreational, cultural and heritage activities oriented to individual as well as the entire community. Havighurst’s (1961) Activity Theory suggests a positive relationship between activity and life satisfaction.

Present paper is aimed to explore the relationship between the leisure activities and quality of life of the elderly. This study is based on secondary data obtained from different available literature on leisure activities and quality of life of an ageing population. Several literatures on ageing reviewed and an effort was made to conceptualize the findings.

The reviewed literature reveals a positive relation between leisure activities and quality of life amongst the elderly people. These activities refresh the mood, increase physical and mental capability, promote the wellbeing of physical and mental health, promote brain functioning and prevent memory loss.
AGE RELATED MORPHOLOGICAL CHANGES IN THE HUMAN PANCREAS

Shubhi Saini, Tony George Jacob, Saroj Sharma, Daya N and Bhardwaj, Tapas Chandra Nag and Tara Sankar Roy
All India Institute of Medical Sciences, New Delhi

Introduction: Progressive fibrosis, associated with aging, affects major organs like the pancreas and liver. This study analyzed the age related fibrotic changes in the ductular system of the pancreas and quantified the pancreatic stellate cells (PSC).

Methods: Pancreas (n=36) were obtained from cadavers of 30-70 years of age. The tissues were grouped into decades- 4th, 5th, 6th and 7th and processed for paraffin embedding and staining by Massons’ trichome method. The fibrosis was quantified using Adobe-Photoshop and Image-J softwares. PSCs (α-SMA positive cells by immunohistochemistry) were quantified stereologically.

Results: It was observed that the cross-sectional area of the pancreatic ducts and their lumina had a significant increase with progressive decades (p < 0.001). Fibrosis in body and tail regions of the pancreas increased with age (p<0.05 for 7th Vs 4th, 5th and 6th decades). The number of α-SMA positive cells, seen in the periacinar, perivascular and periductular regions, increased significantly from decade four to seven (p <0.05).

Conclusions: Morphometrically quantifiable changes occur in the architecture of the pancreas with aging. Periductular fibrosis, acinar atrophy, fatty infiltration, ductal ectasias and papillary hyperplasia were seen to increase with age. The PSCs may be important contributors to these changes in the pancreas.

AGE-RELATED CHANGES IN THE EXPRESSION LEVEL OF INSULIN-LIKE GROWTH FACTOR-1 AND ITS RELATED SIGNALLING PATHWAY IN MICE

Ibanylla K H Hadem and Ramesh Sharma
North-Eastern Hill University, Shillong

Insulin-like growth factor-1 (IGF-1), a key mediator of growth hormone action in mammals is produced by most tissues in the body. The liver is the main source of serum IGF-1, and has endocrine, paracrine and autocrine actions on target tissues. IGF-1 is a mitogen that plays an important role in the regulation of cellular and tissue function like cell proliferation, differentiation and apoptosis. The importance of the insulin/IGF-1 signalling pathway that controls aging and lifespan was first suggested in the invertebrates. In the present investigation, the normal age-dependent protein expression level of IGF-1 in serum and some of the downstream signalling proteins in the liver of young, adult and old mice was ascertained using ELISA and Western blot analysis. Results show that there is a slight decrease in the level of IGF-1 in serum with respect to age and this decrease may be a contributing factor that leads to reduced growth and development of an organism with age. Phosphatidyl inositol 3-kinase (PI3K), a downstream IGF-1 signalling pathway protein, shows a correlated decrease of expression in the liver of mice. However, protein kinase B/Akt expression level increases with age in the liver of mice. Akt stands at the crossroad of several intracellular signalling pathways; its elevated expression partially explains the differential response to IGF-1 and other related signalling pathways during aging of an organism.
DIFFERENTIAL EXPRESSION OF ARGINASE I AND ITS REGULATION BY DEXAMETHASONE IN THE LIVER OF MICE AS A FUNCTION OF AGE

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Arginase is responsible for the hydrolysis of arginine into ornithine and urea. It is a central enzyme of liver function catalyzing the nitrogen elimination. Arginase exists in two isoforms: arginase I is highly expressed in the liver and to a much lesser extent in a few other cell types, whereas expression of arginase II is widespread. Expression of this enzyme is regulated in response to various nutritional factors and hormones. This study was aimed to examine the activity and expression level of arginase I and its regulation by dexamethasone in different ages of mice. Our finding shows that arginase activity and expression decrease with age in mice. This implicates the decrease utilization of protein for energy production and the overall decrease in nitrogen metabolism. Administration of dexamethasone induces arginase activity and protein expression in both ages (young and old) studied albeit to a varying degree. This induction of expression indicates that glucocorticoids play a vital role in arginase gene expression and that the differential response at the two ages studied might be due to the altered basal level of glucocorticoids receptor in these tissues of mice.

MOLECULAR AND CELLULAR BASIS OF MEMORY ENHANCING EFFECTS OF BACOPA MONNIERI EXTRACT ON DIABETES MELLITUS INDUCED MEMORY IMPAIRMENT IN MICE

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Diabetes mellitus (DM) is a metabolic disorder, in which blood glucose level increases abnormally and uptake of the glucose by tissue is reduced. Based on the insulin dependent or non insulin dependent alteration in the level of glucose and its mobilization to tissues, DM is classified as type I or type II, respectively. In DM type II, glucose targeting to tissues is badly altered in insulin independent manner as a result of which tissues experience a milieu of hyperglycemia. Learning, memory and cognitive have been reported to decline in the patients in untreated DM condition. As the memory is stored primarily in synapses, their strength and plasticity is likely to be affected by DM by altering expression and trafficking of various glutamate receptors like NMDA and AMPA receptors.

In order to study the above, DM type II, the mouse model was developed by administration (ip) of given dosage of streptozotocin to neonatal mice. Mice having blood glucose level close to 250 mg/dl or more were taken as diabetic and included in the experiments. One group of diabetic mice was given Bacopa extract for 15 days. Later, they were subjected to eight arm radial and Morris water maze tests for assessing their learning and memory abilities. Our data reveal that the diabetic mice show more errors on eight arm radial maze task and a significant decline in spatial memory performance. Administration of Bacopa extract improves their performance on both the tasks indicating its restorative/protective role in the learning and memory.
IMPORTANCE OF CARE-GIVING IN OLDEST OLD FOR DAILY ROUTINE ACTIVITIES

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Aging is taking place as a broad social trend. This study focuses on how care giving plays an important role in accomplishing daily routine activities which are essentially followed by the oldest old. The study outcome is expected to provide a better understanding of the status of oldest old and bring out the issues that need interventions to ensure the well-being of the oldest old citizens in urban society.

The study was a descriptive cum exploratory study done by using case study method with structured and in-depth interviews along with general observations of oldest old persons and their care givers separately. Total five case studies were taken from the urban locality of Kolkata. Duration of the study was three months.

Result indicated that care giving plays a pivotal role in accomplishment of daily routine activities of the oldest old person as their dependency on care givers was found to be high in various aspects. With the social change in family fabrics in urban society, where children are working and no one left to look after the oldest old persons at home there is a strong felt need of assisted care, effective social work interventions providing oldies helpline and home based services.

COMMUNITY PARTICIPATION BRINGS SUSTAINABLE BENEFITS IN ELDERLY CARE

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Health for all is a global strategy for health development advocated by WHO (1978) and gave high priority to community participation. Health and socio-economic challenges are being faced by the elderly population in India. Due to rapid urbanization and societal modernization has brought in its wake a breakdown in family values and the framework of family support, economic insecurity, social isolation, and elderly abuse leading to a host of psychological illnesses. They are also prone to abuse in their families which includes physical, psychological or emotional and sexual abuse.

These psychosocial issues are prevalent, associated with substantial morbidity, and influence disease progression, function and mortality. Helping older adults to achieve psychosocial health is essential to maintaining overall health and well-being.

This article focuses on the role of active community participation in Geriatric Care programmes.

Capacity building of the community leaders/groups is essential for the success of community-based geriatric and rehabilitative health services which can also play an important role in identifying the felt needs of the elderly and in resource generation.

We describe the process and evaluate an intervention that involves community which can produce wide-ranging benefits.

Community-focused programmes therefore aim to involve all members of a society in a participatory process of strengthening the elderly in the process of self-help was done by means of physical, psychosocial, and rehabilitation.
STRATEGIC APPROACHES TO HEALTH CARE CHALLENGES IN ELDERLY WOMEN

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Majority of India’s elderly women are rural, poor and widowed with high disease burden and vulnerable to health-related abuse. A four pronged health care strategy is given.

1. Awareness generation of health issues: Society to be sensitized to remember the positive image of woman as a lifelong devoted carer when she gets old and sick. Secondly, community organizations should organize public health education camps for elderly women. Thirdly, school students need to know changes and health problems that accompany normal ageing. Elderly women themselves should be advised against indifferent attitude towards their own health. Finally, spreading information on MWPSC Act and on health-related abuse and its redressal mechanisms is important.

2. Health-related legislative provisions: National Health Policy should ensure accessible health care with free care to poor elderly widows, provide gender-sensitive training to care providers and include right to health to prevent health abuse. Amendments in MWPSC Act should include mandatory reporting of elderly women abuse, treating abandonment of elderly women as a cognizable offence and setting guidelines for old age homes. All these to be implementable through Panchayat Raj, Municipal and Tribal Bodies.

3. No cost health screening for elderly women: can be periodically done by family members, volunteers whereby physical, psychological, and socio-environmental impairments are detected and corrective measures taken or referrals.

AGE-RELATED OXIDATIVE STRESS IN THE OLD BRAIN AND PROTECTIVE EFFECT OF GRAPE SEED EXTRACT

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Oxidative stress (OS) is one of the possible mechanisms resulting in age-related cognitive decline in humans as well as subhuman species. The aim of this study was to evaluate firstly the effect of grape seed proanthocyanidin extract (GSPE), as a polyphenol, on the cognitive ability of rat and secondly to examine the OS markers, lipid peroxidation and accumulation of lipofuscin (LF) in the hippocampus (HC) of rat brain.

Female Wistar rats of 1, 3, 12 and 18-months of age received a daily oral supplement of GSPE until they attained 4, 6, 15 and 21 months of age. During this period rats were tested for their cognitive ability. At the end of this period, blood glucose, and markers of OS were assessed in the HC.

GSPE lowered blood glucose, lipid peroxidation (MDA), hydrogen peroxide level, and increased protein sulphhydril (P-SH) content in the hippocampus. In addition, GSPE significantly improved cognitive performance in the old.

These results demonstrate that the extent of OS-related LF accumulation is reducible by GSPE and further suggests a critical role for GSPE as a neuroprotectant in the HC and in preventing cognitive loss with aging.
ANTIEPILEPTIC ACTIVITY OF DEHYDROEPIANDROSTERONE (DHEA) IN IRON-INDUCED EXPERIMENTAL EPILEPTIC FOCUS INVOLVES SUPPRESSION OF INFLAMMATORY SIGNALS AND ASTROGLIOSIS.

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Inflammatory signals (cytokines such as IL-6, IL-1 produced by glia) are known to be involved in the mechanisms of ictogenesis/epileptogenesis as cytokines may interact with glutamate and GABA receptors mediating changes in excitability associated with the pathogenesis of epileptiform electrical activity. DHEA, a multifunctional steroid in the central nervous system, is likely to be involved in the antiepileptic action in human epilepsy syndromes. We have previously found that DHEA has antiepileptic action in iron-induced epilepsy (which models post-traumatic clinical epilepsy), as it suppresses: epileptiform electrical activity, oxidative stress parameters, and glutamate levels with upregulation of glutamate transporters. In the current study we investigated whether DHEA also counters inflammatory signals and gliosis.

In the present research, treatment of the epileptic rats with DHEA (30 mg/kg b.w/day) was done for 20 days to see the effect of DHEA on cytokines (IL-1 and IL-6 by ELISA) in post-traumatic epilepsy in rat brain.

The results indicated that the chronic epileptogenic focus produced by FeCl₃ in the rat brain, inflammatory cytokines levels were elevated, and gliosis increased as indicated by GFAP immunohistology, and were correlated with EEG.

It could be concluded that the decreased levels of IL-1 and IL-6 in the focus, reduced gliosis with concomitant suppression of epileptiform electrophysiological activity indicating thereby that DHEA treatment also counters inflammatory factors and astrogliosis associated with epileptogenesis.

AGE-DEPENDENT REGULATION OF EAAT2 EXPRESSION DURING TRAUMATIC BRAIN INJURY: A COHERENT AND MUTUAL ROLE FOR NF-ÊB AND N-MYC

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Excitatory amino acid transporter-2 (EAAT2), one of the major glutamate transporters primarily expressed in astroglial cells, are tightly regulated during postnatal aging and various brain pathologies including traumatic brain injury (TBI). TBI represses EAAT2 expression in time-dependent manner and consummates to neuronal cell death by glutamate excitotoxicity, however, its precise mechanism is far from clear. Recently, NF-êB and N-myc, which are activated by neuronal signals, have shown to play promising role in regulation of EAAT2 gene transcription. The involvement of NF-êB and N-myc in the regulation of EAAT2 gene expression after TBI as a function of age has not been studied. Aim of the present study was to find out the association of the age-dependent binding of NF-êB and N-myc to the EAAT2 gene promoter after TBI. Our electrophoretic mobility shift assay data demonstrated the elevated binding of NF-êB at -583, -272 and -251 and N-myc at -163 upstream of mouse EAAT2 gene promoter following TBI. Interestingly, the binding of NF-êB and N-myc was early and paramount in elderly mice after injury. Thus, we hypothesize the remarkable coherent and mutual role of NF-êB and N-myc to regulate EAAT2 gene expression in time-dependent fashion especially in response to TBI-induced signals and may have implications for age-dependent mortality after brain pathologies.
CURCUMIN ATTENUATES MEMORY IMPAIRMENT BY MODULATING THE EXPRESSION OF CAMKIIÄ DURING AGING

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Progressive deterioration of memory functions is one of the earliest and most widespread consequences of brain aging. Ancient ayurvedic practices have suggested that curcumin (Curcuma longa linn; turmeric-haldi) has a nootropic effect in the management of compromised cognitive functions in elderly but its molecular mechanism is far from clear. Curcumin may impart its neuroprotective effects on the brain by modulating the expression of various synaptic plasticity related proteins including CaMKIIä, which is a multifunctional serine/threonine protein kinase and plays regulatory role in synaptic plasticity and memory. However, effects of curcumin on the expression of CaMKIIä is not known.

This study investigated the influence of chronically administered curcumin (100 mg/kg b.wt. for 21 days, p.o.) on the expression of CaMKIIä in frontal and parietal cortices of young (8±2 weeks), adult (20±5 weeks) and old (70±5 weeks) male mice of AKR strain by RT-PCR and immunoblotting. Furthermore, effect of curcumin on learning and memory at behavioural level was assessed by Morris-water-maze (MWM).

Our data reveal that curcumin significantly restores the down-regulated expression of CaMKIIä with advancing ages, close to its level in young age. Behavioural study reveal that curcumin reduces the escape latency in MWM with the increasing age, however, both of these effects of curcumin were found to be age-dependent. Our study demonstrates that curcumin is effective in treating impaired learning and memory with the advancing age by up regulation of the expression of CaMKIIä.

DIETARY RESTRICTION UP-REGULATES EXPRESSION AND ACTIVITY OF CARDIAC AND SKELETAL MUSCLE INORGANIC PYROPHOSPHATASE IN MICE AS A FUNCTION OF AGE

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Inorganic pyrophosphate (PPi) is generated by ATP hydrolysis in the cells and extracellular matrix, cartilage and body fluids. Fuelling an alternative pathway for energy production in cells, PPi is hydrolyzed by inorganic pyrophosphatase (iPPase) in a highly exergonic reaction that can under certain conditions substitute for ATP-derived energy. We investigated the expression and activity (U/mg protein) of iPPase in cardiac and skeletal muscle of young and old mice subjected to short- and long-term dietary restriction. The expression level of iPPase was ascertained by the Western blot analysis using anti-iPPase and differential polymerase chain reaction using iPPase specific primer. Older mice showed a significant increase in the expression and activity of iPPase as compared to younger ones. Short-term fasting of 24 h increased the expression and activity of iPPase in the cardiac and skeletal muscle of both young and old mice which were reversed upon 24 h of re-feeding them. However, both young and old mice on long-term dietary restriction showed a cumulative increase in the expression and activity of iPPase when compared with their age-matched controls. This might be due to accumulative adaptation to refill energy deficiency of long-term dietary restricted mice for ATP generation via oxidative phosphorylation, where fatty acid activation could be driven by elevated iPPase.
PHYSICAL AND PSYCHOLOGICAL HEALTH OF OLDER WOMEN IN URBAN INDIA

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Health of an individual, both physical and psychological, is the key factors in determining their quality of life especially in later life. Older women have higher probability of comorbidities in addition, have higher incidence of psychological disorders. Given the diverse contexts and heterogeneity among older women in India, it is essential to understand their health, well-being and healthcare utilisation, for designing policy and programmatic interventions.

A sample survey was conducted in Navi Mumbai to understand health and well-being of older women across three class groups (Poor, MIG, and WTD)

It was seen that older women from upper strata are more likely to suffer from lifestyle diseases and chronic diseases while older women from poorer strata are more likely to suffer from severe stress especially due to financial insecurities and work pressure. Majority of older women across all class groups utilise healthcare, however majority of older women from poor strata utilise care from public facilities in order to minimise their out-of-pocket expenditure while older women from upper strata usually seek treatment from private providers. Factors like age; Marital status; Educational status; Living arrangement; experience of Abuse; Change in involvement in decision making; Income; acute and chronic morbidity, their satisfaction with general health and Level of Stress have a significant influence on the physical health of older women. Significant class differentials were observed in all the facets of psychological state except facet of accepting their bodily appearance.

OLD AGE-A STAGE OF LONELINESS AND DEPRESSION AND HOW TO GET RID OF

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An old age is an integral part of human life. It is the evening of life. It is unavoidable, undesirable, unwelcome and problem- ridden phase of life. A man is compelled to go through the pains and pleasures of this age like the other phases of life before making an exit from this mortal world. Happy young people can grow happy in old age. The loss of friend, family and loved ones leave people behind alone and this loneliness can cause much depression in old age. In this article, we will try outline the problems, troubles of old age and the remedies. As age grows, many physical problems begin to appear. In order to minimize the risks of having these problems, one should adopt regular physical activity, which is not only safe and sound but also enjoyable. It will keep your body fit and have check on our weight. Regular checkup is highly necessary and inevitable in old age problems.

Every phase of life has its own problems which require prudence, wisdom, courage and strength to attend to. However, in this materialist society, everybody is short of time. Nobody has enough time for him. Even his own children, to whom he dedicates his life and his earnings, do not find time for him. Besides, social security and emotional support are terribly needed. A feeling of loneliness adversely affects their mental health which shows through some physical problems.

PROBLEM AFFECTING THE ELDERLY CARE AND WELFARE  

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In Sri Lanka, with the rapid aging of the population, the care and Social Welfare of the elderly has become an important and urgent issue requiring immediate attention. In this context this study was undertaken in five elder’s homes in Colombo, rural and urban areas focusing on problems affecting the elderly care and welfare service delivery, with a view to explore and recommend intervention strategies to be adopted in order to address these shortcomings.  

Using the sample survey, the focused group discussions, in-depth interviews and observation, information was collected at community levels and homes for the elderly. The data gathered was processed using the statistical package to ascertain the problems faced by family members and elders’ opinion regarding elderly care and the quality of services provided including the nature of the care relationship between the elderly and their family members.  

The most important finding of the study was that the fact of insufficient income generation for care as felt by elders and family. The study also found that the need for efficient welfare programmes for enhancing potential of the elderly especially social security of elderly women. This study has identified the formal professional training for care workers to improve the quality of care at elderly care institutions and promote providing non-institutional services.  

SOCIAL ASPECTS OF AGED PEOPLE; A CASE STUDY IN DHARWAD CITY OF KARANATAKA  

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Health care is important factor in day today life. But this is often ignored while considering the age old people in India. We do not have a particular scheme and policies for providing health facilities for old people. The present study attempted to understand the health problems of people above the age of 60. According to theories of social change, culture is a way of life, culture includes our language, way of thinking, behaving, acting and belief. As per M. N Srinivas (1972) in his book “Social Change in Modern India” has mentioned that culture forms the foundation for social change. M. N. Srinivas came out with two important concepts: Sanskritization and Westernisation. Due to the influence of western culture, nowadays people are not taking good care of the older generation people.  

It is observed that above the age of 60 old people are living in different corners of the Dharwad city. These people are neglected by educated children, their siblings and younger generation. Researcher studied about their socio economic condition, health and social relationship in the city area. It is observed that majority of the respondents are poor, incapable and struggling to count down in their last stage.
AGEING IN INDIA- AN ENDEMIC SOCIAL ISSUE EXPERIENCE FROM RURAL INDIA

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Among the myriads of social problems, ageing has become an endemic problem in India. Ageing has been conventionally understood in terms of time-hierarchy of biological ageing, although calendric age is not equivalent to biological age. Usually it is counted from age 55 yrs onward to the senior citizen (+60 Yrs.’ onward), to the heptagenerian, the octogenarian etc. The official definition of ageing is not however uniform all over the world. The most developed countries have accepted the chronological age of 65 yrs as criterion for ageing. The UN agreed to the cut-off age of 60+ years to refer to ageing. Conventionally the term is associated with the age of retirement and pension. These cut-off years are decided on the basis of strict administrative categorization of biological age. But ageing is also socially constructed responsible for loss of the erstwhile family and social roles of a person usually accompanying his/her physical decline. The socio-economic changes in India gradually broke down the family structure as the main institution which made the aged people vulnerable to social insecurity, frustration and loneliness. Rural India, once boasted of its customs and traditions regarding the family and social responsibilities towards the aged both in the family and in the society, can no longer do so. Youth migration, poverty and hardship, lack of family and social sensitivity towards the aged have made them vulnerable to social insecurity, frustration and loneliness.

This paper is written in this larger backdrop. I have tried to capture the varied attitudes and behaviors of the society/community and the aged themselves towards ageing following two methodological instruments- narrative and behavioural. This paper is based on my experiences of interaction with different population groups in different parts of India in my social work profession and is written in narrative style.

LEVEL OF SELF ESTEEM FROM THE CURRENT LIVING ARRANGEMENT OF THE ELDERLY IN THE COASTAL COMMUNITIES OF KANYAKUMARI DISTRICT OF TAMILNADU

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Preamble: The elderly poor are facing several challenges with lack of earning opportunities, poor family support and inadequate state support. Secure and comfortable living arrangement for such elderly poor is becoming a challenge. They face various problems and it leads to their level of self-esteem low. The issues of the elderly belonging to the fisher communities have not been studied much.

Objective: This paper explores the Level of Self Esteem with current living arrangement of the elderly in the coastal villages.

Methods: A sample of 242 elderly persons were selected by systematic random sampling in the coastal communities of Kanyakumari district, Tamil Nadu and were personally interviewed.

Findings: The predominant mode of living arrangement for the elderly is living with sons. However, a considerable proportion of the elderly are living with daughters. Neglect is the major problem in their current living arrangement. Many of them expect money and care in their current living arrangement. Majority of the respondents have low level of self-esteem in their current living arrangement. Age, sex income health status, need fulfillment becomes the determinants of the self-esteem among the elderly.
CAN PHYSICAL EXERCISE, CONSTRUED AS A LEISURE ACTIVITY SOCIO-EMOTIONALLY BENEFIT THE ELDERLY?: A CASE OF KANPUR CITY IN INDIA

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Despite the potential of physical development to highlight broader social complexities, sociologists in India remain disinterested in the area (and sport generally) as avenues of legitimate study. Yet, physical development programs provide sociologists opportunities to know and engage with body politics, questions of structure & agency, social transformation, sustainable livelihood and the social and emotional advantages. In this context, we have tried to develop a model wherein a balance between leisure through physical activities, is designed so as to work out the results for the socio-emotional benefit of the elderly. Physical exercises by the elderly, as a leisure activity has gained acceptance and this has tempted us to test the hypotheses that now this is being taken as a leisure activity seriously for the purpose of social and emotional bonding. To test the hypotheses, a questionnaire has been individually self-administered to a convenience population of sixty elderly persons in Kanpur City.

The inclination of elderly given their socio-economic background towards putting their time into physical activity as a leisurely act shows a rising trend with possible social attachments. With rise of participation level, inclination towards the physical exercise as a leisure activity does increase. Limitations of the study are that only male elders have been chosen.

ELDERLY PEOPLE IN THE RURAL SETTING OF WEST BENGAL: A SOCIOLOGICAL EXPLORATION

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The demographic profile of rural and small towns has changed rapidly and significantly in recent decades. The continued out-migration of increasingly educated young adults, and the growing numbers of retirees, have resulted in rural communities where residents are older, more diverse, and more likely to be female than in the recent past. These changes have transformed rural economies and as a result a cliché of old age homes to cater to the needs of the aged has matured. Without, ebbing the idea of old age homes to a negative expression, the researcher seeks to find out the meaningful social roles, recognition, inclusion and patching up of the otherwise deterioration of the quality of life for the aged population in such old age homes in the rural and small towns of West Bengal. With such a backdrop the study aims to develop an insight about elderly people living in their own homes, as compared to elderly people living in old age homes in rural settings in Midnapore. Findings suggest that the elderly respondents who are living in old age homes feels isolated and lonely and miss their children, but their lives are not miserable. They can retain some identity of their own and have an identity. Contrarily, those who are living with their families are becoming constant victims of day to day conflicts within the family and losing their peace of mind.
STRESS AND LIFE SATISFACTION AMONG RURAL WORKING ELDERLY

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Research shows that significant source of stress for elderly person is the confrontation of repeated losses, loss of control over decision making, concerning health, mobility, living situations and finances which in turn affect the persons social support system. These losses require addictiveness of the survivor (Jaishree Sharma and Ravi Sidhu (2009). Keeping above points in view, researcher made an attempt to study the level of stress and life satisfaction among rural working elderly.

Sixty rural working elderly women (30) and men (30) were taken randomly. The sample selected from different work places like agricultural field, weaving etc. situated in rural areas. All the sample hailed from rural areas, the age ranges from 60-72 years. Standardized questionnaires were used to measure stress (Cohen, Kamareck and Memelstain 1983) and life satisfaction (Diener, Emmons, Lasser, and Griffith 1985).

A comparison was made between men and women working elderly on stress and life satisfaction. The obtained results were analyzed and discussed using appropriate statistical methods.

SECURED OR SUSCEPTIBLE: THE ELDERLY IN EMIGRANT HOUSEHOLDS IN KERALA

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Kerala, the southern state of India, with enviable distinctions in human development indices, which are on par with that of many of the most developed nations, is far ahead in the demographic transition process compared to other Indian states. Today’s changed work-life, attitude of the youngsters, family and social structures, emigration of young family members etc has resulted in the loneliness, exclusion and emotional deprivation of elderly parents. With over 11 percent elderly persons, and insufficient institutional mechanism or policy for the elderly care, the situation of the elderly persons left behind by migration, is still grave. The state is in the leading position in migration, especially international migration which has brought about a number of problems to the elderly in the migrant households. This paper attempts to understand the financial, psychological and health issues of the elderly in migrant households in the state. Both quantitative and qualitative data are used in the study by way of interview schedules and in-depth interviews. It covered the three regions of Kerala. Many a time, the elderly are either forced to lead a lonely life or pushed to old age homes or in the worst case, forced to lead a life of destitute. They experience financial, psychological and health problems. Loneliness, mental stress and feeling of dependency are the major problems they face. They are in a state of dependency that even affects their health seeking.
UNDERSTANDING ELDERLY ABUSE- A SPECIAL REFERENCE TO ELDERLY IN A URBAN SLUM OF COIMBATORE, TAMIL NADU

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Sri Ramakrishna College of Nursing, Coimbatore

A descriptive study was conducted among 80 elderly people using convenient sampling technique at Jawahar Nagar, Coimbatore to identify the prevalence of elderly abuse. The data was collected through an interview schedule by adopting the Elder Abuse Suspicion Index (EASI) tool. The tool had 2 sections, of which section A consisted questions related to the demographic profile and section B is the EASI scale. The collected data were analysed using descriptive statistics and the results were interpreted. The finding reveals that 70% of them were between 60 and 70 years, females and were not working. Half of them had some form of assets and lived with their spouse, while 20% lived with their married daughter and 30% with their sons. 70% of them had one or more medical problems like Hypertension, Diabetes mellitus and Asthma. Half of them expected help from their spouse, 40% from their children and 10% from their grandchildren. Further the finding reveals that 56% of them relied on others for carrying out their activities of daily living. About 30% of them complained about limitation of freedom and psychological abuse, while 19% complained of financial abuse and none of them notified of physical abuse. In 10% of the elderly the researcher was able to notice behaviours like poor eye contact and withdrawn behaviour which can be related to some form of abuse. The notable finding in the study was that, the elderly who lives with their married daughters were faced lesser abuse than the old people reside with their son.

STUDY ON ABUSE AMONG RURAL ELDERLY

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The family members responsible for the care of elderly are often faced with associated problems due to various factors. Such factors strain families’ ability to provide optimal care and increase the likelihood of elder abuse. It is considered as a social and public health problem threatening older people. This article examines a comprehensive understanding of elder abuse and to provide intervention for elders in communities.

Interview method was followed and data collected from 335 elders (Men 143, women 192) who are residing in rural area.

It is noted that 38% of older persons faced abuse one or the other. The gender, age, educational level, and living arrangements have influence on the abuse faced by elderly where as health status and work participation does not have any influence. The disrespect was shown as the most prevalent type of Elder abuse followed by financial, neglect, verbal and physical. The primary Perpetrator was the daughter-in-law in 58% cases with son in law as least abuser (7%). Thereasons attributed for abuses were dependency, inability, illness, poverty and property distribution. More than 90% of them did not report the matter to any authority in order to uphold the family honour. There is a need to sensitize family members especially children. Strengthening of intergenerational bonding is the most effective mechanisms to tackle Elder Abuse.
SOME ASPECTS OF AGEING

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The multifarious dimensions of ageing in India can sociologically be thought to be a series of transition from one set of social roles to another and such roles are structured by the social system. According to Bhatia (1983), “age and ageing are equally related to role-taking, value orientations and modes of behaviour of a person the expectation of which varies at different age-stages of members of a society”. It may be mentioned that the process of ageing is not uniform for all individuals in the society. Some argue that the elderly individuals are in a state of ‘decay’. It implies that their role in society seem to be redundant and obsolescent for our contemporary times.

In many countries people are living longer and enjoying better living conditions than ever before, as a result of increased life expectancy and medical advancements. Unlike previously, in recent times, the function of the family as primary care-giver to the aged has undergone change due to structural changes - both internal and external, most importantly to nuclearisation of family. As a result, one finds the partial shift of caring responsibility of aged on the government/state in the form of various social and economic security programmes. The paper also depicts aged as a resourceful group because of their contribution which in many cases, turns out to be significant for the family. Finally, paper also attempts to favor active aging, by remaining active for a longer period, aged may remain healthy by delaying various health risks along with reducing their dependency even during later years of life.

DIFFERENTIALS AND DETERMINANTS OF THE QUALITY OF LIFE OF THE ELDERLY POPULATION – A MICRO ANALYTICAL STUDY

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Quality of life is a multidimensional concept that is recognized as a useful tool to measure the welfare of the society. Due to demographic transition, the elderly population faces the problem of isolation and lacks the resources for a better quality of life. The quality of life of the elderly population differs according to their sex, age, economic status and living arrangements. In this content a research study an ‘Differentials and determinants of the quality of life of the elderly population – A micro analytical study’ was undertaken with the objective of finding out differences in quality of life of elderly men and women, based on their age and economic status and also to identify the determinants of quality of life of elderly. The study was related to 120 elderly men and 80 elderly women in Coimbatore. The study formulated the hypothesis that there is no significant association between economic status and quality of life of elderly. The study used five point likert rating scale and applied chi-square analysis. The study estimated components of quality of life based on the dimension of economic status, dependency, family, health and psychological satisfaction. The study found that quality of life score is higher for economically independent elderly males. To improve the quality of life of elderly the study recommended improving the economic status of elderly and introduction of new social welfare schemes for the elderly.
WELL BEING AND SATISFACTION OF INSTITUTIONALIZED SENIOR CITIZENS

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The present study was carried out with the objectives to study the demographic profile, physical and emotional well-being of elderly people in the old age home and components of life satisfaction—regarding health, social and emotional life and use of resources. Forty eight percent of elderly were aware of old age home by their relatives and main reason was lack of care from the family members which made the elderly people to stay in old age home. Statistical analysis revealed significant difference for physical and emotional well-being of the senior citizen based on age, the alpha value (10.42) was higher in the age group of 60-65 years. But there is no significant difference for physical and emotional well-being based on educational level and marital status. Statistical analysis revealed that there is significant difference at 1 percent level for life satisfaction based on age, education and marital status. It could be noted from the Duncan’s multiple table, the alpha value for age group 60-65 years (34.75) was higher than other age group. The alpha value (41.11) was higher for graduate elderly and (33.72) for married elderly respondents. It shows better satisfaction on age, education and marital status. Higher the educational level of senior citizen more satisfaction, and married respondents shows better satisfaction. The result revealed that significant positive relationship between the well-being and life satisfaction at 1 percent level (r = 0.509). Thus it is conclude that lack of care, emotional attachment in the family made elders look at other source of care and elders were considering old age home as better alternative.

PERCEPTIONS OF OLD AGE THROUGH A DEVELOPMENTAL LENS

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The present study explored perceptions of old age across six generations. The data was derived from the 60 subjects across the life span which comprised 24 elderly living with their families, 10 middle aged adults, 10 young adults, five adolescents and five elementary and six preschool going children. Picture description, checklist and interviewschedule were the data collection tools.

The findings revealed differences in perceptions across the age groups. Children perceived visual physical appearance like greying of hair, wrinkles on face, bent back, use of dentures and use of stick to walk as a marker of old age. “The notion of physical dependency” was also apparent sign of old age.

The opinions of both adolescents and young adults regarding old age were more thoughtful. They both stated emotional stability; along with physical and physiological changes as a sign of aging. The responses of adolescents also indicated negative connotations towards old age.

Old age was identified as a stage of increased responsibilities and physical dependency and also as a guidance source to the next generations; among most of the middle aged adults.

Solitude, rejection, and dependency were perceived as the indicator of aging among elderly. Positivity in terms of freedom from responsibilities, freedom of choice and being a grandparent; was also seen among few of them.

The study findings stated stereotypical outlook regarding the old age in society. Thus, better understanding of old age and action at intrapersonal, interpersonal, community and public policy levels can improve the acceptance of the same.
LIVING ARRANGEMENTS OF THE ELDERLY IN INDIA: EMERGING TRENDS AND IMPLICATION

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The elderly especially in the rural places are found to have a set of expectations which they are seen to be in unfulfilled in many cases. From among the demand, the first and foremost one is the living condition of the elderly in India. In the present study an attempt to be made to understand the socio-demographic condition and living arrangement of elderly in the family. Descriptive research design with simple random sampling by use of interview schedule method has been taken from 530 elderly (60 plus) respondents in Puducherry district. The study divulges that majority live with son(s) family and one fifth resides with their spouse and alone. The elderly are found to participate in domestic chores where majority are involved in shopping, cleaning in house and one third involved in cooking. Participation in familial activities generally is found to give a short of prestige and involvement in the domestic satisfaction required in a family. So mostly it is seen that urbanisation, modernisation, disintegration of joint family system and emergence of modern nuclear family system engage the elderly to more vulnerable condition. In this study found that among rural the elderly who suffer from lack of care and support providers in the family and rather than prefer outsiders.

PSYCHO-SOCIAL CONDITIONS OF AGED AND SOCIAL WORK INTERVENTION

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Ageing is nature’s gift and god’s blessing. As any stage of lifespan, old age is also not free from problems. Adjustmental capacity of the individual influences psychosocial conditions at all ages, but more in old age. It is a complicated web of several factors that affect the aged such as technical/ scientific advances, cultural, demographic and social changes.

A study was conducted to understand the psycho-social problems of aged influencing their day to day life. An explorative research design was adopted. Interview schedule was the tool to elicit data from 100 aged equally stretched among old age homes and families. Simple random sampling method was used in choosing respondents. Study reveals that the capacity of adjustment decreases with age because of various biological and social reasons. Losing one’s spouse and changes in social roles and responsibilities and cultural aspects are the central causes found by the study for lower adjustmental capacity among elders both at home and old age homes.
PRACTICAL STRATEGIES FOR PROHIBITING ELDERLY ABUSE

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Elderly abuse is a sensitive issue that requires immediate attention from policy makers, police and members of civil society. Indian elderly traditionally, have been treated with respect and were considered as authoritative figures who took critical decisions. However, with the advent of rapid industrialization, breaking down of traditional joint families and other factors, the position of the elderly has deteriorated in society. In the current context, it has become crucial for the elderly to opt for practical strategies for preventing themselves from abuse.

With such an understanding a survey was conducted using purposive sampling method among 100 respondents (male and female), aged 65-86 years, residents of urban Kolkata and having at least a graduation degree. Findings suggested that elderly are aware of abuse and ways to prevent it, but don’t implement these strategies for various reasons. Most elderly agreed that a strong legal system along with necessary governmental education and empowerment of senior citizens about abuse is a practical call.

Maintaining an active social life so as to prevent isolation was also suggested by many. The main thrust of this paper is to highlight some practical solutions for preventing abuse and the coping mechanisms and suggestions along with the concept of ‘Gendered Elderly Abuse’ since elderly women are even more vulnerable than men.

HEALTH OF THE ELDERLY IN WEST BENGAL: RURAL –URBAN DIFFERENTIALS

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Health status evaluation of the elderly on a regular basis is of utmost necessity in order to determine their nature and extent of well-being in one hand, and to assess their ability for an active life in the old age. In India, assessment of elderly health in the community setting has been done more often considering self-reported health and morbidity aspects. Such investigations considering objective measures for disease risk factor assessment among the elderly have not much been attempted in specific locales and communities in the eastern India.

In view of the above, the objective of the present study is to compare health status, as measured objectively, between rural and urban elderly of both sexes in West Bengal.

In all, 468 Bengali elderly individuals of both sexes, aged 60 years and above inhabiting rural and urban locales, participated in the study. Each study participant was screened for selected observed measures of health following standard procedures in either the field or the laboratory settings. Selection of the study participants were done through suitable sampling strategies.

The study reveals significant rural-urban difference in respect of selected screening measures of adiposity/obesity, hypertension, hyperlipidemia, as well as anemia mostly in both sexes. Findings of this micro-level study clearly demonstrate rural-urban differentials, in respect of prevalence of risk factors for non-communicable diseases in the study population owing to contrasting lifestyle experiences in their respective residential settings. Important health intervention points are also identified for future needed action.
A STUDY ON PSYCHO-SOCIAL PROBLEMS FACED BY AGED PEOPLE OF LITTLE SISTERS OF THE POOR (OLD AGE HOME), NAMBURU, GUNTUR DISTRICT, A.P

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Ageing is the final phase of human development. It is primarily considered as psychological phenomenon but it gets reflected in an individual’s economic, psychological, and social areas of life. In India the proportion of aged persons is relatively low in percentage, but higher than developed countries due to high population. The advancement in the health practices and improved living standards have considerably improved the longevity in India. But the breakdown of traditional joint family system, massive employment opportunities, rapid rates of rural-urban migration and globalization has posed new challenges in the care and protection of aged population. The researcher conducted the study in Old Age Home of Little Sisters of the Poor in Namburu Village, Guntur District. The main objective of the study is to analyse the psycho-social problems faced by aged people, reasons for joining the old age home, opinion about old age homes and health problems among the aged.

The research design of the study is descriptive cum diagnostic in nature. The aim of this research design is to analyse the psycho-social problems more precisely as well as to increase the knowledge of the researcher about the magnitude of the problem.

SOME FACTS ON IMPROVED HEALTHCARE AND AWARENESS AMONG TRIBAL WOMAN: A STUDY ON KANIKAR TRIBES OF KANYAKUMARI DISTRICT

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The research paper came out from the study conducted among the Kanikar tribal community of Kanyakumari District of Tamil Nadu based on the healthcare awareness of tribal women. The health care practices have a very important role while deciding the status of development of the nation since the health is an important indicator of social development.

Though the study focuses on healthcare awareness of Kani tribe, it leads us to understand the entire tribal social system. Now a days discussions are about adapting health policies of the European Union, while the healthcare awareness and the practices of the poor underprivileged and vulnerable groups are inadequate and the primary health education not reachable to the ethnic groups like tribal communities. However the discussions for the new health policy will not be a success without proper health awareness in the ground level. The paper is an enquiry about the healthcare awareness among women of Kanikar tribal groups. It tells the improved healthcare awareness among the tribal women and the shift towards the allopathic treatments rather than their traditional practices. Thus, excluded group like tribes can be brought in to achieve inclusive development of the nation.
**AGEING AND LONGEVITY: A PSYCHO - SOCIAL PERSPECTIVE**

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Aging is Multidimensional concept, and psychosocial factors that assess psychological and social well-being should be included in conceptual frameworks used to understand the aging process. It is possible, for instance, that those experiencing health and functioning declines that accompany the aging process are still able to maintain a high quality of life with respect to social and psychological well-being.

As a result of recent demographic changes, such as declining mortality rates among older adults, reaching advanced old age has become an increasingly common experience in and around the world. The World Health Organization has declared that “increased longevity without quality of life is an empty prize”.

The present study focuses on social relationships, psychological well being, satisfaction with life, and perceptions of the aging and also to identify social and health characteristics that contribute to age differences in social and psychological well-being.

**ELDER ABUSE IN INDIA: ISSUES AND RESPONSES**

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In India, elder abuse and neglect has only recently been a subject worthy of serious academic inquiry and concerted action. However, there is still social taboo on discussing the subject and consistent denial by family members that abuse takes place in their homes. Yet, family and community are now recognized as being responsible for elder abuse and neglect, though defining these is controversial. In addition to the definitional disputes, like all form of family violence, elder abuse is difficult to quantify as it occurs in the privacy of the home and reporting systems for elder abuse are almost absent. There is no mandatory mechanism to report mistreatment, neglect or abuse of older people in Indian society unlike in some western countries. In fact, those experiencing and observing it remain generally silent and indifferent. Further, from the legal discourse angle is the difficulty that not all of the situations characterized as abuse fit into existing legal categories. Consequently, little attention is being given to elder abuse as a social issue, or as one relevant to public health. Even less effort is being devoted to tackling the underlying causes of abuse and developing appropriate interventions. The paper highlights some of the actions that can be taken in the country at the individual and the societal level to alleviate abuse and neglect from the health, welfare and criminal justice perspectives.
IS ASSERTION OF THE RIGHTS OF THE ELDERLY IN CONTRAST TO THEIR DUTIES ALIEN TO INDIAN CULTURE?

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Hailing the superiority of Indian culture and civilization, conventional wisdom in India looks upon the “duties of an elderly person” as more sacrosanct than “recognition of their rights”. Elders themselves articulate such a viewpoint. The rights of the elderly are located in the very subtle realms of unspoken expectations of how the younger generation should look after their elders. Asserting elders’ rights is considered a western implant.

So what legitimises the sociological emphasis on the Rights of elders in today’s Indian context? We have to look for reasons in the miserably abused and abandoned conditions parents find themselves in, with no alternative social structural mechanism to fill in the gaps left by migrating children. In this context, assertion of elderly rights through empowerment and engagement is an absolute necessity, and NGOs are best suited for these processes to be showcased. Empowerment and engagement in the realm of Advocacy for better state policy towards care of the elderly would seem to deserve a priority importance over using empowerment tools for any other recreational/social/psychological need.

However, a number of innovative projects operating in India shows that, with support, many of the most frail and isolated older people in the community keen to have a voice in shaping local services and could certainly be enabled to do so.

It is my firm belief that: 1) Involving older people is powerful 2) It’s about values as well as policies and procedures 3) It’s a dynamic process 4) It needs to produce tangible results 5) It could be enjoyable, and at times uncomfortable also 6) We need to listen to the quiet voices 7) Older people are ‘experts by experience’ 8) Engagement can help organisations feel connected with their users and establishes that the organisation is of the people, by the people and for the people.

MANAGEMENT OF WORRIES AND ANXIETIES IN LATE ADULTHOOD

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Levels and duration of emotional reactivity (especially through stress and other negative emotions) to psychological and physical stimuli across the life span is likely to have a profound effect on the physical and psychological health of an individual. Nature of worries and anxieties were analyzed as part of the ICSSR Project data set prepared on a sample of 600 elderly men and women. Results show that gender and age differences in the sources and magnitude of worries and anxieties. Need for interventions in the management of worries and anxieties are discussed.
PSYCHOLOGICAL CONSTITUENTS OF NEUROTICISM IN YOUNG AND MIDDLE AGED ADULTS

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The patterns of neuroticism and its socio-psychological constituents were examined in a sample of male and female subjects between 21 and 50 years. The summary of MRA on neuroticism in the subgroups of adult sample show that physical distress, locus of control and health habits were the most significant psychological constituents of neuroticism in young and middle aged adults. Findings of the study highlighted the need for awareness of mental health problems in later adulthood.

FUNCTIONAL CAPABILITY IN SEPTUA AND OCTOGENERIAN MEN AND WOMEN

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Functional capability in performing daily functional tasks in a sample of Septuagenarian and Octogenarian men and women were analyzed from the ICMR data set on “Healthy Aging” (ICMR,2008). The subjects were drawn from semi urban and rural areas of Rayalaseema region of (Andhra Pradesh). The extent of functional capability in the performance of different ADLs and IADLs and task specific patterns of disability were analysed. Patterns of functional capability varied across gender, social and economic groups. Health care policy implications towards disabled seniors in the Indian context are highlighted.

HIGH FAT DIET ALTERS BRAIN CHEMISTRY AND BEHAVIOR IN AGING RATS

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Diets rich in high fat have been shown to be detrimental to cognitive and motor functions. The present study was designed to evaluate high fat diet induced age related perturbations in cholinergic and antioxidant systems of different brain regions and associated cognitive and motor dysfunctions. Animals (2 months and 6 months) were fed with a control and high fat diets for a period of 8 weeks. The specific activity of synaptosomal acetylcholinesterase (AChE) and acetylcholine (ACh) levels decreased in cortex, cerebellum and hippocampus regions at 4 and 8 months age groups rats. The mitochondrial superoxide dismutase and lipid peroxidation levels increased in all brain regions of both age groups rats fed with high fat diet. However, these induced alterations in cholinergic and antioxidant systems were greater in cortex and significant at 8 months and marginal at 4 months age rats. Spatial learning and exploratory behaviours also significantly decreased in both age groups following consumption of high fat diet.
PRECARIOUS LIVING AND EXPLOITATION: STUDY ON ELDERLY BEGGARS IN DISTRICT MUNGER, BIHAR

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Begging is one of the issues that require immediate attention, but the problem is compounded when the beggars are elderly striving to eke out their living in one of the most backward states of India. The purpose of the study is to find out the living pattern and exploitation of the elderly beggar population in Munger district, Bihar. The study is qualitative and exploratory in nature. Purposive sampling is used to conduct this study with beggars’ age 60 years and above. In-depth Interview, field visit, observations, focus group discussions were used for data collections. The study reveals that beggars are living in abject poverty, miserable health condition, physical torture, economic loss, and victims of various other forms of exploitation. Although, Bihar boast the first law on beggary prevention in independent India called “The Bihar Prevention of Beggary Act, 1951, however, its retrogressive approach leads to processes of social exclusion, incarceration, regulation, criminalization, and enforcement. Immediate steps need to be taken to prevent this vulnerable population from being victimized. The study is conducted at specific places where beggars’ daily activities are centralized with consequence that the findings are potentially very context specific.

HEALTH EFFECTS OF OUTDOOR EXERCISE DURING POOR AIR QUALITY: ELDERLY POPULATION IN INDIA AS A CASE STUDY

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In India, millions of people regularly exercise outdoors as part of health promotion activity. However, the poor ambient air quality in Indian cities poses a crucial health risk for individuals indulging in outdoor exercises.

Method

In this context, we performed a detailed meta-analysis of relevant works carried out so far, including our own study, on the health risks associated with poor ambient air pollutants among those taking outdoor exercises, especially elderly population.

There is an increase in the depth and amount of respiration during exercise, especially in people who exercise outdoors. Reduced nasal resistance causes relatively unconstrained entry of toxic air particles within the respiratory tract. The ultrafine particulates settle onto the respiratory tract lining and do not get exhaled, thereby causing severe health issues. The deposition fraction and VE during light exercises are lesser than during high-intensity exercise. The impairment of respiratory defenses due to continuous exposure to air pollutants may increase the load of the air pollution dose during exercise.

Thus, those taking outdoor exercise in the polluted atmosphere of cities become highly vulnerable to air pollution exposure.
ASSESSMENT OF ACTIVITY AMONG THE COMMUNITY DWELLING OLDER PERSONS

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Activity is an important indicator of health status and quality of life of the senior citizens. An activity is a focused behavior, an ability a person can perform. Mind and body do not work separately; activity is a unified concept. Activity of a human being comprises of other aspects such as physical, social, and psychological constructs. The present study empirically investigated the activity levels among the community dwelling older persons. A random sample of 300 respondents was selected using multistage random sampling method for the study. Descriptive research design was adopted and interview schedule method was used to collect the data from the respondents. Activity rating scale (K.Maheswari and P.Ilango, 2010) was used to find out the activity levels of the older persons based on three dimensions namely physical activity, psychological activity and social activity. The results revealed that the older persons experience moderate level of activity (48.3%) and respondents from rural setting have lower level of activity compared to urban older persons. It is concluded that, if the physical activity is continued and maintained with good mental health and socialization, the older persons can always have a successful ageing.

VULNERABILITY AND COPING MECHANISM OF AGED: A STUDY OF ELDERLY WIDOWS IN JHARKHAND

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Widows are the most vulnerable segment among the elderly population in India. About fifty percent of elderly women (60 years and above) in India are widows compared to only 15 percent among elderly men. Elderly widows suffer multiple problems attributable to gender, widowhood and old age. Based on a sample survey of 300 rural elderly widows from Jharkhand state, this study examines the vulnerability and coping mechanism using both quantitative and qualitative data. The vulnerability of elderly widows has been measured on the basis of their social relationships, change in status after becoming widow, decision making ability, etc. “Self-Adjustment Inventory” and “Social-Adjustment Inventory” have been employed to understand the coping strategies. The study has shown that elderly widows face discrimination within their houses and within the community. They have very limited role in family decision-making and are economically dependent on others. Lack of property and savings, loss of husband and poor health make them vulnerable to abuse. The family as a fundamental unit of the society needs to be strengthened along with social security measures to take care of elderly widows.
RESIDENCE STATUS AND MENTAL HEALTH PROFILE AMONG THE ELDERLY IN WEST BENGAL

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In India, the steady rise in proportion of elderly in the population is taking place due to inter-alia increase in life expectancy as well as for relatively improved health care facilities, in general. Fact remains, that mental illness constitutes an important aspect of ill-health among them. Increased longevity of elderly led to higher prevalence of age related neurological disorder like dementia as well as psychiatric problems of depression, anxiety and so on. Studies on mental health aspects among the community dwelling elderly in specific ethnicities are virtually lacking in the Indian State of West Bengal.

In view of the above, the objective of this paper is to evaluate the effect of residential status on mental health aspects, viz. level of anxiety and depression, among the elderly and also to determine possible socio-demographic correlates of the mental health traits considered in this study.

In all, 380 elderly Bengali individuals, of both sexes, aged between 65 and 79 years inhabiting urban (Salt Lake city, Kolkata) and rural (Horkhali Block, East Midnapore district) locales in West Bengal participated in the study.

Both anxiety and depression level are found to be significantly higher among rural males and females in comparison to their urban counterparts. The result of logistic regression analysis indicates that several socio-demographic covariates viz. age, sex, marital status, self-earning, living arrangement, are the significant predictors of depression and anxiety occurrence.

LIVING ARRANGEMENTS AMONG THE TRIBES OF CHIKKAGONNAGARA OF KOPPAL DISTRICT IN KARNATAK

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Introduction:

The tribal people who live in thick forest, minor forest produce and due to the modernization today they are living along with the main plain people. Beda tribe is one of the first and largest tribal community in Karnataka. Today the tribal population is increasing in transaction. The lives of tribal are more vulnerable during summer and rainy season. Each season they are facing lot of problems and having number of disease like malaria, dengue, typhoid, chronic, malnutrition, and tuberculosis, TB etc these diseases are occurs among the people. The researcher attempted to study about to prevent of these diseases and to take an appropriate steps to curing in the tribal area.

Methodology:

Research Questions:

1. Why the tribal people health system is not solving?

2. Even though the modern medicine is available, why the Beda tribal people are fail to make use of that?
Tools and Techniques:
The study is based on both the primary data and secondary data. The primary data was collected with the help of interview schedule. Researcher interviewed 100 respondents in the Chikkagonnagara of Koppal district in Karnataka

Result and Conclusion:
This paper has attempted to known about public awareness, and their living system/arrangement, health problems and why they failed to make use of modern medicine and finally researcher tried his best to give suggestions and create awareness to implement the policies in a government level.

DIGNITY IN PRACTICE: AN EXPLORATION IN OLD AGE HOMES IN KOLKATA

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People today live longer, enjoy better health and old age is not synonymous with dependence on others or a diminished quality of life, nevertheless this seems not enough to dislodge a negative image of old age or encourage a positive acceptance of a period of life in which witnesses inevitable, unavoidable decline of dignified living. Quality of care is a key determinant of quality of life’ (NESF, 2005) which ensure their dignity although there is a lack of clarity about what kinds of caring activities lead to preserved dignity.

With this backdro the paper attended empirical results on preserving dignity related to care and perceived Quality of Life (QOL), and how the Govt. Bill (Maintenance and Welfare Parents and Senior Citizens Bill, 2007) was perceived by these elderly.

Accordingly data were collected from the purposive sample of 102 elderly (56 male and 46 female) aged above 65 years from 10 Old Age Homes in Kolkata. Processed data-based facts highlighted that care is an important precondition for facilitating the Quality of Life of elderly, care should be given in such a way that elderly feel their dignity is preserved, the elements used in Govt. Bill for caring elderly are not enough for preservation of dignity of elderly.

PATTERNS AND DIFFERENTIALS OF LIVING ARRANGEMENTS AMONG URBAN ELDERLY WOMEN IN TAMIL NADU

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Living Arrangements of the elderly women have great importance to understand their status and well-being at the family level. In view of this, an attempt is made to understand the patterns of the living arrangements and the effect of background characteristics on living arrangements making use of the data collected from 414 elderly women from Coimbatore city, Tamil Nadu. Frequency and cross-tubular analysis with chi-square test of significance has been adopted. 39 per cent of elderly women co-reside with married son(s), whereas another substantial percentage (22%) of them living alone / themselves. The differentials of elderly women tend to live alone is significantly (p<0.001) higher among married, earning personal income, participating any income generating activities and not single child alive than their counterparts. Conversely, the percentage of elderly women co-reside with children is significantly (p<0.001) higher among those belonged to households of higher SLI, 2+ earning members, less IADL, not working and not earning any personal income than their counterparts. Further, it is noticed that the elderly women co-reside with children is increasing with an increase the age groups. Based on these finding suitable policy implications are proposed.
CAREGIVING ARRANGEMENTS AMONG THE ELDERLY LIVING IN AN URBAN SLUM IN TAMIL NADU STATE, INDIA

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The ramifications of population ageing can primarily be felt on health care systems, family and social security provision, as old age is a period marked by declines in health, social and material resources, although the extent of decline depends on pre-existing socio-economic conditions. The ability of the elderly to cope with old age and sickness depends not just on their functional and financial independence but also on the extent of care and support that they receive.

The research is based on primary data from a field survey conducted in 2005 in an urban slum within the Chennai Municipal Corporation, as a slum population is a fair proxy for poor socio-economic status. As part of the survey 206 elderly persons were interviewed on morbidity, treatment and caregiving.

The provision of social care and economic support depends on the need for and availability of care and support. Factors like being on bed rest due to illness, restrictions of usual activity, competing demands on family’s time because of participation in the workforce and childcare responsibilities and living arrangements are important factors than caregiving. Adult children were the most important source of social care and economic support, with bulk of social care being provided by female caregivers. The government plays an important role in the provision of economic support through the Old Age Pension scheme particularly for elderly women.

ELDERLY WOMEN: PREVAILING PARADIGM OF CARING SCENARIO IN THE BACKDROP OF FEMINIZATION OF AGEING

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Ageing is a demographic reality and a worldwide phenomenon. Ageing as a broad area of research has been extensively studied. However, gender component of ageing has not been taken seriously as it was done earlier in other disciplines. Of late, gender issues in old age have gained momentum due to the preponderance of women in the population owing to their enhanced life expectancy.

Women and men experience old age differently depending on the structural attributes/cofounders of the society where they have been born and brought up. Though elderly women are also not homogenous group, elderly women in general encounter many challenges. Elderly women have often seen as care provider and seldom seen as care receiver. Besides these, issues of social security, meagre financial means, psychological trauma, grinding poverty, discrimination, social stigma of various types and other structural constraints are haunting elderly women. Women are regarded as traditional caregivers. Due to feminization of ageing, women live longer. She cares for all but none will be there for her care.

Under these circumstances, how best we can meet the genuine needs of elderly women is a whooping question? Lack of gender specific old age policies and gender specific health policies are the real constraints to meet the needs of the elderly women.

The present study concentrated on widows who are between the ages of 70-80 years, residing in Dharwad city of North Karnataka.
Socio-economic condition and Social Support Among the Ageing Tiwas of Assam

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Ageing is a universal phenomenon. But how an individual will age is population and environment specific. The role and status of an ageing person in the society is determined to a large extent by the culture specific to the population. The Tiwas of Assam are a population of Mongoloid origin. Their social organization is patrilineal and their economy is based on agriculture. The present study was conducted among two villages of Marigaon district of Assam to understand their socio-economic condition and social support system in relation to the ageing Tiwas. 268 male and female Tiwas above the age group of 50 years were selected. Data were collected with the help of a structured schedule, interview and observation method. The Tiwas are educationally and economically backward. The family is the main source of support for the ageing Tiwas. Joint family is still the dominant type of family among them. Not a single ageing Tiwa person was found to be living alone. Traditional system of keeping resident son-in-law in case a couple does not have a son ensures both social support and residence with at least one adult child among the elderly.

Family Care of the Elderly- Issues and Challenges

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Aging is a broad concept which includes many processes like biological, psychological, social and emotional. The physical, psychological, economic and social problems of the aged need to be analysed and measures need to be initiated at family and institutional levels to ensure better living conditions for the aged.

The present paper throw a light on views of elderly towards aging, their life style, expectations, aspirations etc. A sample of 60 (30 men and 30 women) aged above 65 are taken for the study through random sampling technique from the voters list of Guntur district. The results revealed that families fail in providing care for the elderly as they expect from younger generations either due to changing social values, growing individualism, migration which leads to scarcity of needed accommodation etc. The family ties are still stronger and elderly want to live with children irrespective of comforts. But they want some sort of recognition, self-sufficiency, value in decision making, care when they need, etc. Old age home concept is not acceptable to many in case of illiterates especially, whereas literates, are of the view that it is quite common in future, may not be now. There is a need for society and government to take initiatives for providing support to the family to enable them to discharge their obligations for the care and protection of elderly.
TRENDS IN SOCIAL ASSISTANCE: RURAL PERSPECTIVE
TODAYS' CHILDREN ARE TOMORROWS' ELDERS

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Demographically elderly population bag is increased due to low mortality and low fertility, the absence of I.F.C made to face the challenges and later facilitates to launch the Social Security with the collaboration of Central and State government, insurance local organizations and SHGS.

A half-yearly report prepared by BDO/BCA has the authority to increase the quota of beneficiary and also replace the deceased by newcomers. Nodal officers held the meetings every quarterly at PRC, NOPs and Annapurna programme arranged 10Kg Rice/Wheat through PDS, due to less effect shifted to TPDS. Smart cards introduced for Geriatric ailment through RHIS. They spend majority of amount on medical expenses as well as for the needs of their grandchildren. And joint account is needed either in nationalized, commercial bank or at least post office to encase the amount.

MORBIDITY STATUS OF ELDERLY IN KERALA

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Longevity in Kerala has increased significantly in the last few decades mainly due to the socioeconomic and health care developments which lead to the higher numerical presence of elderly people. Kerala has become an ‘aged society’ and the percentage of aged population is close to that of the developed countries of the world. Older people usually suffer from health conditions that are predominantly chronic in nature and are basically different from those of adult and young populations. The health status of aged population becomes particularly perplexed as they are prone to get multiple illnesses. For the past few years, the prevalence of communicable diseases has also become very high in Kerala, though it is reported by people of all age groups. The present study deals with the prevalence of morbidity, both chronic and acute, among the elderly of Kerala. Data are drawn from the research project ‘A Study on Morbidity in Kerala’, funded by the UGC. The objectives of the present study are to analyse the prevalence rate of morbidity and cost of treatment among elderly in Kerala. The results of the study showed that about three-fourth of the elderly are suffering from non-communicable diseases like hypertension, arthritis and diabetes followed by diseases of kidney/urinary system. The elderly also suffer from communicable diseases like fever and Acute Respiratory Infections during the month prior to the survey. The findings showed that caste, living and hygienic conditions of the elderly have significant effect on their prevalence of morbidity.
TOWARDS QUALITATIVE AGING: MODERN GADGETS

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It is a generalized conception that the aging elderly, in the process of losing their earlier physiological and psychological agility, prefer to spend most of their time at home with a certain amount of independence. This is a natural impulse of all the aged who have been on their own, supporting their families all through their youth and middle age. But this very desire of the old, is a cause of worry for the children in charge of care-taking, who are already hard pressed for personal time due to today’s competitive work culture. This often results in youngsters preferring old age homes to relieve themselves of this essential responsibility conveniently.

As a probable solution to this situation, can one think of modern advanced technology? As today technology has provided solutions to relieve humans of many tedious and menacing tasks, why not relieve the problems of the aged too?

It is in this light, this paper is an attempt to examine how best modern gadgets for the old can be harnessed to ease the problems of the aged to give them a qualitative aging. The focus of the paper is to find out the awareness of aging-friendly gadgets, their usage, affordability, and the overall attitude of the aged as well as the care takers towards the gadgets and also to assess their impressions of leading a fulfilling and enjoyable old age.

A quality life must include an optimal portion of leisure participation. Leisure activity participation ensures the elderly to gain control over the environment, express the abilities and identify the important components of life. Therefore leisure education is needed to make all the elderly understand the importance of leisure activities.

EXAMINING SOCIO-ECONOMIC ASPECTS OF AGEING: A CASE STUDY

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The demographics of old age (above 60 years) population in the country constitute at 7.4 per cent of total population (as per 2011 census) and it is increasing at an unprecedented rate. For a developing country like India, such trends have the potential pressures with regard to socio-economic, medical and psychological problems. Gerontology, the study of ageing and the elderly, deals not only with the physical process of ageing, but also with the related social and cultural factors. Change in socio-economic status and various health problems (psychological) adversely affect an individual’s standard of living and their ‘lived-experience’ during old age. The psychology of ageing is clearly influenced by the general attitude towards the elderly. Social psychology indicates the changing attitude towards them. At the same time, social implications of ageing should be viewed in a wider context of their individual well-being and their social interactions/engagement. The present paper attempts to address the following research objectives through primary data of select elderly population of Belgaum city, Karnataka state and secondary data. The objective of the research is to examine the socio-economic background of the elderly, to analyze their social problems and health issues and to understand their attitude towards life.
A COMPARATIVE STUDY ON THE PERCENTAGE OF THE ELDERLY POPULATION IN SOUTH ASIAN COUNTRIES

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Due to various factors such as advancement in medical facilities and improved health and sanitation, the life expectancy has increased all over the world, especially in the developing countries. This paper aims to study the percentage of aged population in the South Asian countries - Bangladesh, India, Nepal, Bhutan, Maldives and Sri Lanka. The data is taken from 1990 to 2012. In the 1990 data, Maldives has the least percentage of the elderly population, followed by Bhutan which is 0.1% higher. In the latest data, the percentage of Aged is highest for Sri Lanka (8.2%). The change is that the percentage of the elderly population in the total population is highest in Sri Lanka (2.7%). The policies providing assurance of health to the aged is the main cause of this change. If the expenditure towards the aged is not properly planned, it may lead to fewer resources for the elderly, thus hindering their welfare.

AGED DEPENDENCY RATIO OF INDIA AND ITS NEIGHBOURS

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The aged population’s welfare is an important issue of any developing country like India, especially as the population of the people above 65 years is constantly increasing in these developing countries. The increase in the population of the aged puts a high pressure on the working population which may hinder the welfare of the aged population.

In this paper, this pressure is studied using the Aged Dependency Ratio. This study compares the Aged Dependency Ratio of India, Afghanistan, Pakistan, Bangladesh, China, Myanmar, Nepal, Bhutan, Maldives and Sri Lanka. This study shows how the aged dependency ratios of China and Sri Lanka are high at present, followed by Nepal and then, closely followed by Maldives and India.

The increase in aged dependency ratio must be due to the higher life expectancy due to better medical facilities in these countries. This can again be harmful to the economy if proper measures are not taken to ensure the welfare of these aged people.
THE FEELING OF NOSTALGIA AND MIGRATION:
AN ANALYTICAL STUDY AMONG OLD GENERATION MALAYALIS

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Indian people are diverse and culturally heterogonous and are strongly connected to the bond of home and family. But it is found that the heterogeneity of culture, language, and everything else becomes one when the immigrants think of coming back home. This includes the nostalgia towards the homeland. This study attempts to investigate the push and pull factors that forces them to leave the homeland. The data shows that the migration of the Malayali people is very high, either by push or pull the people are flowing outside their state. Among those who do go out, some prefer to stay outside their homeland. Kerala has a long history of migration. In the early 60s onwards there started a trend of going abroad inquest of money for better lifestyle and those who left the homeland lived the majority of their lifetime in other places, while some came back and settled back in their homeland after years. So this study primarily deals with the nostalgia of the migrants who came back.

Present study focus on a particular group of people above 60 years of age, those who have worked as a migrant labourer in their lifetime and those who came back and settled in their homeland. The study focuses on the dependency of migrants towards their migrating place and how they overcomes the nostalgia/ or home sickness towards their homeland.

SOCIO - ECONOMIC CONSEQUENCES OF AGEING POPULATION IN CUDDALORE DISTRICT OF TAMIL NADU

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The main aim of this project is to assess the socio - economic implications of ageing population in the study region of Cuddalore district. The study objectives are, (i) to portray the socio-economic status of the ageing population (60+) in the study area, (ii) to study the different diseases of common, acute and chronic diseases of the ageing population, (iii) to estimate the health care direct and indirect costs of the diseases of common, acute and chronic of ageing population, and (iv) to assess the impact on employment, consumption, saving and investment of ageing population in study area, and (v) to study the degree of social exclusion of the ageing population in the study district.

The study concludes that age has considerable effects on occupation, income, saving, investment and significant amount of social exclusion. The present research contends that alternative livelihood strategies are necessary for aged population. Subsidized treatment packages for the senior citizens in private health sector are warranted. Social security programmes for aged population to be strengthened. Finally it is of utmost importance to protect and special care for the aged population in the household is needed.
ENGAGING THE OLDER ADULTS: A CONCEPTUAL FRAMEWORK
BASED ON KERALA SOCIAL SCENARIO

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Older life is, in general considered as the time of disengagement. The disengagement is catalyzed by several psychosocial factors accumulated through the life course. According to disengagement perspective older adults are pushed aside by lose “ego-energy” and become increasingly self-absorbed (Cumming and Henry, 1961). In the traditional Indian social set up the older adults were looked after by the family members with great care and respect. However, the modern social set up brings speedy changes in the family outlook (Rajan, et al., 2000). The escalating growth of older care homes in Kerala in the last decade signals the magnitude of disengagement faced by older adults. It also indicates the significant changes taking place in our society, which are largely not amenable to the older adults. This paper conceptualizes a gender focused multidimensional “strengths based programme” for the older adults in Kerala with the use of available resources within the society.

MEASURING THE OLDER POPULATION IN INDIA AND ITS STATES IN 2001:
A LORENZ CURVE APPROACH

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This paper attempts to capture a snapshot of the distributional aspect of the older population of India. An innovation is being made to build an Index (Crude Ageing Index and Refined Ageing Index) using Lorenz Curve approach on the comprehensive Census data. This paper attempts to fill the gap of ageing research by way of depicting the distributional aspect analyzing on the age group of the older population. The results clearly shows a variation across the districts of different states and within the states. This paper assume importance for the reason that it precisely helps to locate the distribution of the older population thereby, opening up a way for suggestion to the policy makers and the researchers for further exploration.
MEASURING POPULATION AGE AND AGEING: IS 65 THE NEW 60?

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With advances in health and life expectancy, measuring population ageing requires adjustment. As the life expectancy increases, number of years lived after certain age also increases. Hence the measures of Population Ageing should be adjusted and age of elderly requires correction. The present paper examines the trend in expectation of life at birth and at 60+ in past and present situation. Further population ageing has been measured and calculated by using proportion of population at ages 60+, 70+, 80+, the total dependency, aged dependency ratio, index of ageing and median age of elderly.

The study revealed that expectation of life at birth is more than 70 years for Kerala and 60 years for Uttar Pradesh. During the last decade, life expectation of elderly in Tamil Nadu has relatively increased when compare to the life expectancy of the elderly in Kerala. Further, considering the number of years lived in the past (1995) and present date, index of ageing (prospective age) has been calculated for Kerala, Tamil Nadu, Andhra Pradesh and Uttar Pradesh. It has been concluded that number of years 60+ population is going to live would be more in the coming years (2015, 2020) in Tamil Nadu than Kerala. Ageing in Uttar Pradesh would take 30 years when compare to Kerala for the current year. From the analysis, it has been suggested that “age of elderly” should be different for different states taking in to consideration of expectation of life than 60+ as standard.

STUDYING PERFORMANCE OF OLD ADULTS UNDER SPECIAL ADULT LITERACY PROGRAMME OF TRIPURA

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Literacy is now considered as a component of development index of any country. It acts as a torch in any age group of people. Besides, it is one of the key weapons of any nation. It is acceptable to not only adult people of age group 15-50 years but also is inevitable for old adults of 60 years & above. In the present paper, it has been attempted to analyze the performance level of an achievement test on reading, writing and arithmetic done by old adults of Tripura across few socio-economic variables. The multi-stage stratified simple random sampling technique (SRSWOR) has been adopted for the study. The analysis shows that moderate performance level has been achieved. The findings of the study are useful to the policy-makers for eradication of illiteracy among old adults of a country.
STUDY OF ANTI-AGEING PROPERTY OF MORINGAOLEIFERA LEAVES IN FISH BRAIN.

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Antioxidants play an important role in inhibiting and scavenging free radicals and thus providing protection to animal tissues against infections and degenerative diseases and the ensuing ageing. In search of novel sources of antioxidants in the last years, medicinal plants have been extensively studied for their antioxidant activity. Various parts of a vegetable and medicinal plant, Moringaoleifera and their active constituents are known to possess diverse biological influences. However, little is known about their antioxidant activity. The present study was carried out with a view to investigate its possible antioxidant activity and hence on ageing.

The study was conducted in Oreochromismossambicus, bred in captivity with known age. Fish in the age group of one month and three months were selected for the study with corresponding controls. Leaves of Moringa were collected, oven dried and made in to fine powder. Standard fish meal was prepared with required ingredients and cooked. To the cooked meal vitamin mixture and Moringa leaf powder (5%) was added. The meal was made in to a dough and pelletized, then oven dried. The experimental fishes of both the age groups were fed with the pellets thrice a day for three weeks. The control feed was made without the leaf. The results show that Moringaoleifera leaves can be used as an anti-ageing agent as well as an easily accessible source of natural antioxidants in the food and pharmaceutical industries.

COMPARATIVE EFFECT OF EXOGENOUSLY ADMINISTERED AMYLOID BETA 40 AND 42 IN RAT HIPPOCAMPUS AND AMYGDALA ON BEHAVIOR AND GLUTATHIONE ENZYME SYSTEM

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Oxidative damage and behavioural anomalies are as integral to pathogenesis of Alzheimer’s disease (AD) as amyloid beta (AB) toxicity. Much research is needed for anti-oxidant systems like glutathione (GSH), glutathione reductase (GR), glutathione peroxidase (GPx), glutathione transferases (GST). We investigated the comparative toxicity of AB1-40 and 1-42 in accordance with changes in GSH system and behaviour in rat model, to correlate physiological damage with phenotype.

Methods: Groups (with their vehicles Saline and DMSO):
AB1-40Hippocampus: GroupA
AB1-40Amygdala: GroupB
AB1-2Hippocampus: GroupC
AB1-42Amygdala: GroupD
Behavioural tests administered for the study were as follows:
Morris Water Maze(Spatial cognition)
Open Field (fear and anxiety)  
Light and Dark Chamber (anxiety)  
3-Chambered Sociability (Social Behaviour)

AB was stereotaxically injected. Behavioural tests performed; afterwards brains were micro-dissected into cortex, midbrain, hippocampus, cerebellum and medulla, for biochemical estimations.

The results indicated that MWM Group C showed the least decline in latency period.

OFT Total Ambulatory activity and Rearcing: Least for Group C.

Faecal Index: Maximum Group C.

LDCT: Group C maximum average time 1.5 folds in the light chamber compared to the dark chamber.

TCST crossing towards, time spent and close contacts with unfamiliar rat as compared to familiar was greatest for Group C about 1.2 folds greater.

Total thiol: Maximum for Group C

GR and Gpx: Minimum Group C for all brain regions.

In conclusion Toxicity was seen to be greater for AB1-42 with Hippocampus administration.

POST-NATAL EXPOSURE OF PBDE-209 IMPAIRS SPATIAL MEMORY IN YOUNG MICE: RELATION OF GLUTAMATE AND OXIDANT-ANTIOXIDANT HOMEOSTATIS IN THE FRONTAL CORTEX AND HIPPOCAMPUS

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Decabromodiphenyl ether (PBDE-209), used as flame retardant, is recently recognized as a developmental neurotoxicant and cause cognitive impairment. Memory formation is majorly governed by glutamate signaling via NMDA receptor (NMDAR), expressed on postsynaptic neurons. The relation of glutamate, NMDAR and oxidative stress are well established in memory impairment. However, PBDE-209 impairs memory by disturbing this relationship, is need to be explored. The spatial memory was evaluated by Morris water and radial arm mazes in young male mice after oral administration of 0, 6 or 20 mg/kg dose of PBDE-209 from PND 3-10. PBDE-209 exposure significantly increased memory errors in young mice that was coincide with increased activity of glutamate dehydrogenase and decreased expression of GLT-1/EAAT2 in the frontal cortex and hippocampus of neonate and young mice showed glutamate burden that may impart increased transcription of NMDAR1 by increased binding of CREB and decreased binding of REST/NRSF to NMDAR1 gene promoter. Further, increased levels of malondialdehyde and protein carbonyl and decreased activities of superoxide dismutase, catalase, glutathione peroxidase were indicative of uncontrolled level of free radicals that may cause neuronal death. In conclusion, the disturbed glutamate and oxidant-antioxidant homeostasis that turn out into altered regulation of NMDAR1 may responsible for PBDE-209-induced memory impairment in young mice.
CARE AND CRISIS IN OLD AGE HOME:
CASE STUDY IN CACHAR DISTRICT OF ASSAM

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Ageing is considered as natural and universal process. It is regarded as an inevitable biological phenomenon. The elderly face a multitude of psychological, social, and physical health problems (Bhatala, 1999). Increased life expectancy of an average Indian has resulted in increasing numbers of elderly Persons which as per 2011 census contributes to more than 70 Million of India’s population. In India “aged” population is the second largest in the world. The proportion of elders living in old age homes in India is increasing gradually. Old age homes are a need of contemporary era as the life-styles are changing fast and diminishing acceptance of family responsibilities towards elders. Older people are, therefore, in need of vital support for their overall quality of life.

Through Preliminary survey of studies it has been found that there is enough scope and opportunity to understand the concept of old age homes thoroughly and evaluating psycho-social status of elders in old age homes in Cachar district. Hence the papers further aims to analyze all the aspects related to social and personal adjustment and overall life challenges faced by these elderly in the above mentioned locality. For the purpose of the study at hand the researcher has relied on both primary and secondary data sources. Interview schedule has been employed for the primary data purposes. It offers a group of total 80 respondents as sample for the study. With this background; the paper also underlines the implications for future research and practice.

QUALITY OF LIFE OF NEGLECTED INSTUTIONALISED ELDERLY WOMEN

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The purpose of the study is to make careful investigation and project the quality of life of neglected elderly women who are subjects of institutionalisation. The widowed, divorced and separated [WDS] from family are neglected and abraded from there fascinates. Elderly women susceptible for institutionalisation or prone to homelessness, wandering, beggary and all forms of abuse in the community. Elderly women are one among the weak and vulnerable sections of the society. In the ancient of days women were worshiped as goddesses as the time passes the status of women are fluctuating. As the elderly population are increasing in the globalising world the generation gap is highlighting the elderly disrespect, less dignity and the negligence of elderly are haunting the lives of the elderly population. The study was conducted in a social welfare organisation in Chennai known as ARUWE. The study was conducted on 30 elderly women inmates using purposive sampling technique. The standardised instrument was used to measure Quality of life (QOL) is WHO – BREF- 2004. The researcher had used descriptive design to describe the facts. The objectives of quality of life study are to measure under four domains like physical, psychological, social relationship and environment. It is found that 53.3 percentage of the respondents have low quality of life, 60 percentage of the respondents have low level of health satisfactions, in physical and psychological health it has been equally distributed, 63.3 percentage of old people have low level of social relationship and 60 percentage of the respondents have low level of environment with reference to quality of life.
HEALTH AND LIFE SATISFACTION OF INSTITUTIONALIZED ELDERLY WIDOWS: A COMPARITIVE STUDY

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Health often depends upon factors such as life satisfaction, well being, family-interpersonal relationship and many more. Health also depends upon the spouse relationship and encouragement, when there is no spouse or loss of loved one automatically life satisfaction declines. Studies show that there is a correlation between elderly spouse and life satisfaction. Keeping above points in view present study was conducted to explore the association between loss of spouse and their health and life satisfaction among elderly widows.

The sample consisting of 30 women with spouse and 30 women without spouse living in old age homes with the age group of 60 and above. The sample comprised of women belonging to various socio-economic status. Assessment of general health was done using G.H.Q developed by Goldberg and Hiller(1972) and Life Satisfaction Scale developed by Singh and Joseph(1997). Comparisons were made in terms of their marital and family status. Study revealed certain interesting results which gave new insights about the elderly widows. The results were discussed in this paper.

A STUDY ON THE PHYSIOLOGICAL HEALTH STATUS OF THE INSTITUTIONALIZED ELDERLY WITH SPECIAL REFERENCE TO MYSORE CITY, KARNATAKA

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India is the second largest population of elderly (60+) in the world. As per the census of 2011, the number of older population was 94 million (8.0%). Today, the old age homes are indispensable as they are needed to take care of the lonely and forsaken elderly in the evening of their lives. Whenever the family does not provide full protection and security to the aged, the society has to share the burden of looking after them. Change in socio-economic status and various health problems adversely affect an individual's way of life during old age. At present, the elderly population in many countries is facing several problems of which health is a serious aspect.

The objective of the study is to understand the socio-demographic profile of institutionalized elderly in Mysore and to analyze the health status of the Institutionalized elderly in Mysore.

The study is conducted with 30 respondents in two different old age homes-Vimala terminal and JSS Elderly Home in Mysore city.

The findings of the study reveal that the elderly suffer from ill health without proper attention and care. During their ill health, they prefer to be cared by family members. Essential geriatric care should be provided to them. It is the responsibility of the Government, NGOs and the Society to popularize the different Geriatric Welfare Schemes among the elderly.
ECONOMIC ANALYSIS OF ELDERLY IN OLD AGE HOMES OF HUBLI-DHARWAD DISTRICT

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The last century has witnessed a rapid increase in the population of the elderly in the developed as well as developing countries like ours. This phenomenon has been showing its consequences not only in the western world, but many countries such as ours are now feeling the impact of this transition. The present paper seeks to look into the economic needs and conditions of the aged in the formal institutions of old age homes. Economic aspect being one of the most important supports of survival departs itself with the stage of ageing. The economically unproductive aged is helpless with no source of income or minimal source of income for their survival. But one cannot ignore the level of expenditure of the aged. Thus, it becomes essential to look into the level of expenditure of the aged in the old age homes.

Objectives:

• To understand the socio-economic conditions of the elderly in old age homes.
• To analyze expenditure patterns of the elderly in old age homes.

Material and Method:

The study is been undertaken in four old age homes of Hubli-Dharwad district of Karnataka state. Both primary and secondary data is used. The major data is primary data collected from all four aged homes. The total population of all four old age homes is 98. The universe has been taken as sample in the study. The primary data was collected through interview method.

LIVING ARRANGEMENTS OF ELDERLY IN THE CONTEMPORARY SOCIETY-A REVIEW

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India has been experiencing changes in its family system. A system which had provided not only support and care to the elderly for their wellbeing but also had acknowledged their status of authority and decision making is virtually unable to extend the same support and respect to them today because of various reasons. Thus, for voluntary or involuntary reasons, many-a-time elderly may be either left alone or may be alienated from their children and family despite living with them. This may have a direct bearing on their decision making role, adjustment, and/or life satisfaction. With the declining capacities, increasing age related debility, anxiety about economic and physical support, fear of death and bereavement they may pose a challenge to the society which is practically growing apathetic to the elderly. The present paper has attempted to review the available research studies on this aspect of the Living Arrangements of the elderly. The author has tried to highlight the reasons for their living with or without their children/relatives or the near and dear ones and the consequences there off. Further, it is also attempted to examine the gaps in this area of research and suggest the likely issues which need to be focused in the future research.
CHANGING PATTERNS OF LIVING ARRANGEMENTS

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Living arrangements will have a significant impact on the elderly people. Living arrangements of the elderly has immense importance to understand their status and well-being. Living arrangements are affected by various factors such as family history, gender, marital status, education, employment, financial resources, dependents, age of children, health and well-being, network of family and friends, location, social capital that moulds our decisions.

Changes in living arrangements are closely linked with the family network. Today, the size of families is decreasing, the role of extended families is diminishing, and perceptions of inter-generational support and caring for older persons are rapidly changing. A trend of declining fertility and mortality rates helps to explain profound changes in the size and composition of the nuclear family. Rapid migration from rural to urban, mainly as a result of industrialization process has been contributing factor to the decreasing importance of the extended family. All these factors have generated rapid changes in the size and structure of families.

**Objectives:**
- To understand the socio-economic conditions of the elderly.
- To examine the patterns of living arrangements of the elderly.
- To explore the changing patterns of living arrangements of the elderly in rural areas.
- To examine the role of family in the care of elderly.

**Material and Method:**

The present study was conducted in Ankola taluk of Uttar Kannada district of Karnataka state. Uttar Kannada district consist of 11 taluks. Of these taluks, Ankola taluk was selected through lottery method. Out of 81 villages in Ankola taluk, eight villages have been taken for the study through lottery method. Based on objectives and nature of the study 98 respondents were randomly taken as sample. The study is based on primary and secondary data. The primary data was collected through interview method.

DYNAMICS OF LIVELIHOOD OF ELDERLY IN INDIA

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‘Means of living’ is called livelihood; it should be sufficient for the need of present and stable against any kind of adversity in future. In old age, while ability of earning decreases, need and vulnerability both increases; thus old age often results into age of poverty and insecurity. It is tried to look into the dynamics of poverty and security of livelihood with the process of aging; workforce participation, income and consumption of elders household has been analyzed through various secondary data sources. The result show that work participation decreases successively after the age of 55 and elders get dependent upon the family support system. But the proportion of household with only elder member is increasing, which is an emerging challenge for the security of elders. In a country like India poverty leads higher work participation and elders are also forced to work more in poor family, often they get engaged in hard manual work. The household which has elders are poorer and under the higher burden of health expenditure, which increases with the increase in the age of elders. Thus ageing works as catalyst to increase vulnerability in poor household in context of developing countries like India, which needs policy attention.
ECONOMIC HARDSHIP AND HEALTH-RELATED QUALITY OF LIFE AMONG ELDERLY: A STUDY BASED ON CROSS-SECTIONAL SAGE DATA IN INDIA

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Ageing is a process of increase in economic dependency. As the population ageing leads to increase in the morbidity level, it disturbs economic status, especially in case of elderly. The present study is aimed to describe and analyze the potential inequalities in health status and among elderly suffering from economic hardship in India.

Present study has utilized the SAGE data for analysis. It is a cross-sectional survey conducted in 2007 in India. A total number of 3618 elderly (aged 60 years and above) has been interviewed in this survey. EQ-5D instrument is used to measure health-related quality of life among elderly. Multiple logistic regression is employed to examine the relationship between economic hardship and the calculated measure of Health using EQ-5D instrument with the help of SPSS and Stata software.

The above instrument (EQ-5D) is based on the five dimensions namely mobility, self-care, usual activity, pain or discomfort and anxiety or depression. Only self-care has shown an improving impact on the health-related quality of life as compared to other dimensions of the instrument. On the other hand around 38% of the elderly are suffering from economic hardship.

Economic hardship is positively related with the dimensions of EQ-5D, whereas anxiety or depression and usual activity status are the key factors affecting to the economic status. The findings from this study needs further investigation and interventions.

HEALTH CONDITIONS AND LIVING ARRANGEMENTS AMONG HOMELESS ELDERLY: WHO IS TAKING CARE?

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Living at roadside is their identity, homelessness is unnoticed and neglected area from the public point of view. This population is so vulnerable that they cannot fight for their rights all alone. Among them a large number of elderly lies who are homeless going through their last stage of life. They are the victim of many types of harassments, abuse and violence, threats to their personal safety and security, etc. and still struggling with their present situation. Further, these incidences lead to living alone under pathetic condition with scares resources. Till now, government has not caught their issues. Because of this we do not even have a single policy for homeless people in India till today.

Homeless people are living under unhygienic condition for their livelihood. Violence in the family has forced them to live on the street, and they have undergone various types of problems from the public as well as private governing bodies. They were found living under bridges, footpaths, bus stops, railway lines, and near sewage pipelines, etc. The above mentioned living conditions also affects their physical as well as mental health.

There should be availability of shelter homes, health facilities, and programme intervention for the homeless people and there is a need to made policy to take care of their issues.
A STUDY ON THE SOCIAL AND PSYCHOLOGICAL PROBLEMS OF ELDERLY IN HIGHER CLASS GROUP IN MUMBAI

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Several studies have been done focusing on the various issues related with the Elderly and their health. This study is going in the same direction at some deeper level of health, i.e. in the direction of psychological health or mental health along with their social background.

The study mainly focuses on the presence of psychological problems among the elderly which belongs to Upper Middle class. The data was collection according to the convenience sampling method. In the perspective of psychological problems two scales are used. First one is Geriatric Depression Scale (GDS) and another one is University of California, Los Angeles (UCLA) Loneliness Scale. The GDS explains the range of depression the respondents are having and the UCLA Loneliness Scale is to measure the range of loneliness, whereas the depression and loneliness are the fundamentals of psychological problems.

This paper give the results that the higher middle class group of elderly are not having much psychological problems. Very few percentage of elderly are suffering from depression and loneliness. Widower/widowed are suffering from severe loneliness and depression.

They are independent have their own source of income and are not dependent on their children for their basic requirements. Many of the elderly are still working after their retirement and also have continued their interest in various activities.

PSYCHOLOGICAL WELL BEING AMONG RURAL ELDERLY

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Psychological well-being is defined as possessing positive self-regard, environmental mastery, autonomy, positive relationships, a sense of purpose in life, and feelings of continued growth. It is asserted that the reason for studying the positive end of the mental health spectrum is to identify what is missing in people’s lives. Keeping above mentioned points in view present study was undertaken to explore PWB of the rural elderly. A Psychological Wellbeing questionnaire developed by (Bogle and Prakash 1995) was used. The data was collected from a sample of 70 older men above 60 years who live in rural areas. All the residents were interviewed face to face and the data was collected.

The obtained results indicate that the older adults who have involved in work even after sixty years have high scores in PWB. But when comparisons were made between two groups on PWB scale there was no significant differences were found. The results show that the older adults who are involved in some form of activity are having better wellbeing than who have not involved in any activity.
FORGIVENESS AND LONELINESS: A STUDY OF ELDERLY PEOPLE IN KOLKATA

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Forgiveness is a process that involves a change in emotion and attitude regarding an offender. It is considered as human strength and an important factor that influence human development. Loneliness is defined as individual’s subjective experience of a lack of satisfying human relationships and it is a negative feeling causing distress to an individual. Several research studies have shown that connection between loneliness and forgiveness contributes to comprehension of interpersonal engagement correlating with intrapersonal reflections in old age. The present study was to investigate the relationship between forgiveness and loneliness in elderly people in Kolkata.

In this study purposive sampling technique was used on a sample of 100 (50 male and 50 female) respondents aged between 65 to 80 years from old age home and household in Kolkata by using 1. Heartland Forgiveness Scale (Thompson et al., 2005) and 2. Revised UCLA loneliness scale (RULS), [Dan RusselOtitaPeplau and Carolyn Cutrona 1980].

Data based fact of qualitative and quantitative analysis highlighted that people with regular social interaction demonstrate significantly lower level of loneliness and higher level of forgiveness when compared to those who are less socially adjusted and lonely.

Findings have implicated that lower level of loneliness boosting forgiveness in old age.

PERCEPTION OF SOCIAL SUPPORTS AND FUNCTIONAL CAPABILITY AMONG OLDER MEN AND WOMEN

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Perception of social supports is considered to be a marker of successful ageing. The present study aims to study how perception of social supports influence functional capability in 120 older men and women. Results indicate that subjects with high functional competence showed favourable perception of social supports compared to those older adults with low functional competence. Further, case studies were analysed to gain deeper understanding of association between social supports and functional capability. The findings are discussed in the light of elder care policy issues.
SOCIAL COHESION TO DEVELOPMENT:
AN EXAMINATION OF STATUS OF ELDERLY IN INDIA

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There is neither a clear definition of social cohesion nor is there a possibility of its direct measurement. One of the most common approaches given by Jensen identifies five dimensions of social cohesion: belonging vs. isolation, inclusion vs. exclusion, participation vs. non-involvement, recognition vs. rejection and legitimacy vs. illegitimacy. This paper attempts to measure social cohesion in its multidimensional aspect from the perspective of elderly by studying its levels and patterns by different social groups and regions, and examined influence of social cohesion on development. The objectives of this paper is to, develop a measure of ‘social cohesion’ from elderly’s perspective, to assess the levels and patterns of social cohesion among elderly across various states by different socio-economic scenario and finally to examine the role of social cohesion on three developmental indicators autonomy, health and work-force participation in elderly. Lack of data on social cohesion in India makes it tougher. Hence this paper uses the data of BKPAI conducted by ISEC, Bangalore and IEG, Delhi in sponsorship of UNFPA, India. Proxy indicators of service utilisation, asset ownership, education and mass-media exposure are taken to form social cohesion index among elderly and finally assess its impact on three indicators of development.

SCENARIO OF WELL-BEING IN GENDER PERSPECTIVE AMONG ELDERLY: AN OAXACA DECOMPOSITION ANALYSIS

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The multidimensional aspects of economic well-being among elderly have long been debated. This study attempts to understand the prevalence of gender discrimination in well-being of India’s elderly with respect to difference in their economic status, for which WHO sponsored SAGE-India data (2007) have been used. Oxaca-Blinder decomposition analysis of well-being at national level has been carried out. The study recognizes the difficulty in judging the level of well-being due to socio-cultural constraints and thus generated a dynamic index considering various dimensions of life. A thorough analysis is carried out to identify the regional, socio-cultural and physical factors that contribute the differentials in gender well-being under different economic backgrounds. The scenario of well-being is highly skewed in terms of gender discrimination in factors like functional capability, education and satisfaction about economics for poor and non-poor elderly. Gender sensitive programs and policies to minimize economic inequalities are required to address existing disparities.
MUSIC, DEVOTION AND AGEING: THE ROLE OF “BHAJANS” IN ELDERLY WELL-BEING, IN THE HINDU BENGALI COMMUNITIES OF KOLKATA

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To what extent does religion assist individuals in coping with the challenges of advanced age? Does religiosity increase with age? How important are spiritual needs at old age for one’s well-being? In an attempt to find out the answers to the given questions, striking the gerontologists since the foundation of their discipline, this paper is an sociological study conducted in Kolkata among the Hindu Bengali Residents of two Old Age Homes of the city. It aims to put into perspective the role of “Bhajans”- Hindu devotional songs in praise of God and his divine love.

Vital data from both Bhajan singers and Bhajan listeners have been gathered to meet the purpose of the study. The paper presents how “Bhajans” have become ingrained in the daily lives of these old age home residents, something which they can’t do without. How this gratification towards the devotional tunes acts as a healer to the vulnerabilities they face at old age. How does the Old Age Homes design different well-being sessions for them using “Bhajans” and “Kirtanas”. How this “solace” helps them in active participation and “coping” with the social milieu of which they are an integral part. The paper also suggests a road map ahead for the improving of their livelihoods by setting up small activity centres in the city where they can teach, learn, discuss, participate, share, debate and practice activities associated with devotional songs and chants with their fellow elderly living in family set ups and thus helping each other engage and empower in the process of healthy ageing.

SOCIAL SUPPORT SYSTEM OF THE ELDERLY LIVING ALONE IN KERALA

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Old age had never been a problem for India where a value based family system is supposed to prevail. Our culture is automatically respectful and supportive of elders. However the disintegration of joint family system and the impact of economic change have brought in to a sharp focus of the peculiar problems which the old people now face in our country. In our country, the rate of elderly living alone is very high, resulting in a crisis of caring for the old people, which lead to a high number of old age homes in our society. Migration has been one of the positive outcomes of our countries mode of development. But today migration poses a new set of problem to the increasing elderly people of our country.

This study analyzed the socio-economic characteristics of the elderly respondents. In the study majority of the respondents belonged to the age group of 71-80. They visit their children rarely and don’t have adequate economic support from any other source. So this makes them more vulnerable, economically and emotionally. The results revealed that there was a positive effect of religious beliefs and utilization of leisure time in social welfare activities on stress of the elderly. They were not receiving any financial support from the govt.
A SENSE OF LONELINESS AMONG THE RURAL ELDERLY

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This study made an attempt to find out reasons for loneliness feeling among the rural elderly people of both sexes living in the rural district areas of Coimbatore, Tamil Nadu.

50 elderly people were selected from the Coimbatore rural district areas by using simple random sampling technique. An interview schedule was administrated to explore the issues related to the loneliness among the elderly people. Percentage was calculated to know the mostly related issue for loneliness among the rural elderly.

Around 70% people are lacking companionship. 66% people revealed they are no longer close to anyone. 69% people said their interest and ideas are not shared by other family members. 76% said they have a feeling of left out. 73% said that their social relationship is superficial. 71% people said that their relatives are around them but not with them.

In conclusion it was seen that most of the elderly people are having a sense of loneliness in the rural district of Coimbatore.

ELDERLY IN THE WORLD OF YOUTH: SHRINKING PUBLIC SPACES AND GROWING EMOTIONAL VULNERABILITY AMONG ELDERLY IN URBAN INDIA

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Contemporary India is hailed across the globe for its highly favourable demographic dividend with nearly 60% of its population belonging to the age group of 15-35 years (highest in the world). However, there is one another significant lot of Indian demography which most frequently gets overlooked. This rarely acknowledged though highly significant population belongs to 60+ age group, which as per 2011 census comprises more than 70 million of Indian demography.

The increasing focus of state on youth leads to growth of their preferred culture and hence the public space for elderly both in, tangible and intangible terms gets reduced significantly.

Apart from this, data also suggests that crime against elderly in urban India and especially in metropolitans like Delhi are on an all time high. The research paper aims to explore the inherent psychological fears and growing emotional vulnerability of elderly staying at densely populated East Delhi which also is home to the most heterogeneous population group migrated from various parts of eastern and northern India especially U.P, Bihar, Assam and West Bengal. The primary data complemented and substantiated with secondary findings makes the study balanced and holistic offering the researcher(s) scope and flexibility to generalize their findings. Applying the method of in-depth interviews with selected respondents the paper endeavours to highlight their concern in a more accurate, precise and scientific manner. With this background, the paper also underlines the implications for future research and practice.
AISLE OF LIFE SATISFACTION: THE ELDERLY IN KOLKATA
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In the last decades an increasing attention has been paid to the issue of wellbeing among elderly, and life satisfaction has been used as indicator of wellbeing to evaluate older people’s lives, reflecting multiple and broad domains. Life satisfaction is a global concept, referring to life as a whole rather than to specific aspects (Bowling 1997). Life satisfaction is a multi-dimensional issue that depends on many objective and subjective characteristics. Life satisfaction among the elderly is an important concept as it gives an overall view of the adjustment as well as adaptive coping ability of the elderly. The aim of this study is to identify the level of life satisfaction and to examine the elements of life satisfaction amongst the elderly people living in the institutions and in family setting; the indicators of life satisfaction among the elderly and the correlation among the indicators of life satisfaction. Accordingly data were collected by purposive sampling among 106 elderly (54 from Family setting and 52 from Old age homes) over the age of 65. The findings suggest that the elderly living in family setting are more satisfied than elderly living in the institutions and in both cases male are more satisfied. Also of significant importance were loneliness, the degree of reduced self-care capacity, social support, interpersonal relationship, social adjustment and socio-economic status.

ACTIVE AGEING IN KERALA
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The ageing scenario of Kerala is much prominent than in any other states of India. Kerala has the largest proportion of elderly population and the growth rate among the aged is increasing higher and higher. According to 2011 census, 12.6 of the population is constituted with the aged. Females outnumber males among elderly. Due to the decline in family size, national and international migration and increasing work participation rate among females, the number of care givers for the aged persons has been on the decline. In this regard active ageing is becoming important in the elderly lives of Kerala. Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. There are several factors in various degrees underpinned the concept of active ageing. This paper tries to exhibit various factors associated with active ageing in Kerala. In this study self-rating of health and life satisfaction of the aged are considered as the main determinants for active ageing. The required data are taken from the survey, ‘Building a Knowledge Base on Population Ageing in India’. The study observed that economic and social security and living arrangements ensure the promotion of healthy aging. Kerala needs a suitable model for the adequate care and support for the elderly which reinforces the concept of active ageing.
ECONOMIC WELL-BEING OF OLDER ADULTS IN INDIA: A COMPARATIVE STUDY OF ELDERLY AND NON-ELDERLY HOUSEHOLDS

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The main objective of this paper is to examine the economic well-being of older adults (45+ ages) in India. Data from Longitudinal Aging Study in India (LASI) pilot survey 2010 has been used for analysis. The households are classified into two groups; households with elderly members and households without elderly members. Result shows that around 28% of the older adults in India are poor and there exist wide gap between non-elderly and elderly households as former are in better economic condition than later. On one hand monthly per capita consumption expenditure (MPCE) is lower among elderly households but on the other hand, monthly per capita health expenditure (MPCHE) is much higher among them compared to non-elderly households. The condition of households with only elderly is more alarming. There is strong need for a policy which addresses the economic security of older adults at their sunset years of life.

CHANGING POPULATION OF NEURONS AND GLIA IN THE HUMAN COCHLEAR NUCLEUS DURING AGING

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Presbycusis is a major communication disorder and chronic medical condition affecting the aged and often leads to varying degrees of de-socialization. The present study deals with the stereological - neuron cluster analysis ranging from birth to decade nine where the qualitative and quantitative changes in the neuronal and glial population of various sub-divisions of human cochlear nucleus (CN) was investigated.

Forty one human brainstem from different age groups were processed for cresyl violet staining to determine the volume of the CN using un-biased stereological methods. Further neuron/neuron nucleus area data was subjected to cluster analysis.

Among all the ages studied, it was noted that decade one had minimum and three had maximum nuclear volume and neuron number respectively. The mean neuronal and neuronal nucleus volume also increased during this period. In cluster analysis, it was observed that the larger size of neurons were remained unaltered throughout the ages and small to medium size neurons showed alterations in their neuron/neuron nucleus area from fifth decade onwards.

The present data may help in understanding presbycusis, and eventually help clinicians to develop different treatment modalities and further help in rehabilitation of such patients.
CARE AND SUPPORT DURING TWILIGHT YEARS:  
PERCEPTION OF ELDERLY FROM RURAL INDIA

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In today’s context of modernization and its associated developments, it is necessary to know not only the perceptions of elderly about the care and support provided by their children but also those of the younger generation with a view to understanding the current situation particularly in rural areas. Present paper focuses on care and support elderly gets in family and their perception towards younger generation in rural Maharashtra. Issues like situation of aged in the context of respect and care, how the aged and their subsequent generation perceive ageing, elderly’s views and opinions about young generation have been explored in this study. Further, the impact of various socio-economic characteristics on the perceptions of elderly towards younger generation is discussed in detail. Data for this study was collected from rural Maharashtra using semi structured interview schedule. 600 males and females were interviewed using systematic sampling technique and use multivariate analysis. Result reveals that one third of elderly in rural area are not getting proper care and support from their children/family, many of them perceive ageing as a problem. The study highlights the need for company of either married or unmarried children to make elderly feel more secure.

RE-LOOKING FAMILY TRANSITION:  
ALTERNATIVE APPROACH TO ELDERLY CARE

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The issues related to the problems of old age care are seen from different angles, such as intergeneration gap, changing structure of family, negative images of older people. The attempt here is to explore how all these pillars contribute to the old age care and to find out how the challenges could be addressed at four levels, individual, family, community and country.

Extensive literature review was done till year 2013 for published research studies using Google research engine and published material in the libraries.

The old people expect care in the traditional & cultural context which is based on an old model, whereas children of today under the influence of globalized culture perceive the care of older people in their own context, which does not commensurate to the traditional model of old age care. So ‘inter-generation gap’ needs to be interpreted more in terms of two ‘conflicting models of care’ rather than absence of emotional bondage among the younger generation. The healthy ageing can be ensured by adopting multi-pronged approach in which the focus has to be on both old as well as young people in order to create reciprocity in the perceptions regarding the care of the elderly.
THE JURIDICALIZATION OF CARE: A SOCIO-LEGAL INQUIRY OF THE LAWS AND POLICIES ON AGEING IN INDIA

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The paper aims at a sociological analysis of policies for the welfare of the elderly in India and the implications of juridical meanings attached to the notion of care. Care for the elderly in India is typically organized around familial care. The legal discourse in India valorises the notion of care for the elderly as a matter of the family. The right to care is limited to food, clothing, residence and medical treatment of elders by their relatives who would inherit property of the elderly. Such juridical notion of care bypasses needs of the elders who are childless. The legal discourse in India is very much influenced by the international gerontological discourse. By tracing the trajectory of discourse around old age as originated in the West, it is observed that ageing is viewed as a medicalized condition. This promotes a universalized stress on ‘active’ and ‘productive’ ageing, which ends up glorifying the working, young body. Critically analyzing relevant judgments and policies, I examine how the elderly are named in policy and law, and how their needs are interpreted. I argue that although the State upholds the figure of the senior citizen as a right-bearing individual, it also re-enforces the dependency and vulnerability of the elderly as a special category of persons. This study is an attempt to uncover the legal mechanics generating an ageing identity. I conclude by showing that discourse on empowerment of elderly is structured around the identification of elderly as a docile individual.

DOES WOMAN AWAY FROM VIOLENCE AFTER REACHING OLD AGE IN FAMILY?

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The aging of the global population with women living longer than men, resulting in the feminization of aging, focuses attention on the intersection of gender and age. Women across the lifespan can be victims of violence but there has been little attention to date to the neglect, abuse and violence against older women. They are more economically vulnerable than younger women and they may fear poverty, homelessness and/ or loss of health care benefits if they report abusive behaviour by a spouse or family members. They have been socialized to minimize their own identity, needs and desires.

All of the older women the profoundly negative effects of non-physical abuse on self-esteem and self-image were voiced with strong emotions. All expressed a belief that as victims of nonphysical forms of abuse their wounds healed very slowly.

In conclusion violence against women does not reduce after sixty years of age. Violence may become more complex, insidious and debilitating, compounded by factors such as the financial insecurity of women with increasing age after sixties and a culture of silence and stoicism among older women. Elderwomen are neglected by their family members. They are less likely to seek social or psychological services and also need of emotional support from family members and social support from societies.
THE WEAKENING OF SOCIAL BOND AS A FACTOR OF ELDER ABUSE AND FEAR OF CRIME

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The problems such as elder abuse and crime are one of the most serious social issues affecting the Indian elderly in later life. It is difficult to find any specific cause behind the elder abuse and fear of crime. Weakening of social bond may be considered as a cause of elder abuse and fear of crime in current times because it has given rise to many problems such as abusive behaviour, neglect and exploitation against the elderly in Indian society. The weakening of social bond also breaches the social order and family system. The way of life and sense of wellbeing of the elderly has been affected the most due to weakening of social bond. The paper attempts to understand the nature of elder abuse within the framework of social bond theory. The paper further explores the linkage between weakening of social bond, elder abuse and fear of crime. This study is based on primary survey of 200 elderly. This survey has been done in Lucknow district of Uttar Pradesh in India from October 2012 to December 2012. The findings show that though the percentage of crime and elder abuse by unknown persons and criminals is quite high but what is alarming is the growing incidences of crime committed by family members, relatives and even neighbours. The study suggests that weak social bond is a significant source of elder abuse. This definitely raises concern among the elderly as occurrences of such cases generate feeling of fear of crime among them.

ENABLING ELDERLY TO IMPROVE THE QUALITY OF LIFE

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India is experiencing a considerable rise in the proportion of elderly people in the population. There are many physical mental social environmental changes takes place with the aging process. Generally in old age, physiological problems are related to digestive problems, low food intake, reduced perception of taste and smell and impaired mental function, chronic diseases. Impairments such as arthritis hypertension, heart conditions respiratory problems diabetes, cancer and osteoporosis affect the quality of life of elderly. The so far evidences point out to the importance of nutrition and balanced diet in the development, susceptibility and outcome of these diseases.

In this study, an attempt is made to assess the attitude and awareness of elderly people regarding their health, and how to enable them to improve the quality of their later life. The respondents were selected on random basis and data were collected using structured interview schedule. A simple descriptive statistical method has been applied to analyze the data.

The findings of the study suggested that, the personal interventions on their own habits, diet, hygiene, and activities definitely help elderly in improving the longevity and quality of life and reduced morbidity disablement.
Introduction

Fall-induced injuries among older-persons are a major public health concern in societies with aging population.

Methods

A hospital based unmatched incident case control study was conducted from January to June 2013 among 251 cases and 250 controls to identify the predictors for falls among older-persons. Participants were sixty years or above admitted at Thiruvananthapuram Medical College. They were interviewed using a structured pretested interview schedule. Data was entered in Epi-data and analysed using SPSS-17.

Results

Age of participants ranged from 60 to 95 years. Mean age of cases was 71.6 ± 9.13 and that of controls was 67.02 ± 6.17. Intrinsic risk factors for falls identified in the study were: female sex-OR: 1.548 (95% CI: 1.040-2.304), previous fall history-OR: 2.057 (95% CI: 1.217-3.475), visual defects-OR: 4.346 (95% CI: 2.685-7.035), age above seventy years -OR: 2.227 (95% CI: 1.619-3.064). Single status-OR: 2.381 (95% CI: 1.641-3.453), using walk-aid-OR: 2.014 (95% CI: 1.104-3.674), presence of door-thresholds-OR: 1.498 (95% CI: 1.035-2.167), presence of tripping hazards around the house-OR: 2.016 (95% CI: 1.223-3.324) were the extrinsic risk factors for falls among older-persons when adjusted for other variables.

Conclusion

Falls among older-persons are multi factorial.

AGE RELATED MORPHOLOGICAL CHANGES IN THE HUMAN PANCREAS

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Introduction: Progressive fibrosis, associated with aging, affects major organs like the pancreas and liver. This study analyzed the age related fibrotic changes in the ductular system of the pancreas and quantified the pancreatic stellate cells (PSC).

Methods: Pancreas (n=36) were obtained from cadavers of 30-70 years of age. The tissues were grouped into decades- 4\textsuperscript{th}, 5\textsuperscript{th}, 6\textsuperscript{th} and 7\textsuperscript{th} and processed for paraffin embedding and staining by Massons’ trichome method. The fibrosis was quantified using Adobe-Photoshop and Image-J softwares. PSCs (á-SMA positive cells by immunohistochemistry) were quantified stereologically.

Results: It was observed that the cross-sectional area of the pancreatic ducts and their lumina had a significant increase with progressive decades ($p < 0.001$). Fibrosis in body and tail regions of the pancreas increased with age ($p<0.05$ for 7\textsuperscript{th} Vs 4\textsuperscript{th}, 5\textsuperscript{th} and 6\textsuperscript{th} decades). The number of á-SMA positive cells, seen in the periacinar, perivascular and periductular regions, increased significantly from decade four to seven ($p <0.05$).
Conclusions: Morphometrically quantifiable changes occur in the architecture of the pancreas with aging. Periductular fibrosis, acinar atrophy, fatty infiltration, ductal ectasias and papillary hyperplasia were seen to increase with age. The PSCs may be important contributors to these changes in the pancreas.

4. Miscellaneous issues: Universalization of pension, age based increase of pension, increasing retirement age for women particularly widows, proper health insurance, cost effective old age homes are also indirectly important.

REVIEW OF NATIONAL POLICIES FOCUSING ON NUTRITIONAL ASPECT OF THE ELDERLY IN INDIA: A CRITICAL ANALYSIS

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Research shows effect of nutrition and health on the quality and well-being of an individual. It is observed that health systems of various developed and developing countries are giving priority to nutrition in their policies through implementation of programs. In India the health system are designed for the general population and very little preference is given to the elderly. There is a need to understand whether the current policies focus on health of the elderly and also to see to what extent nutrition is given priority.

Content analysis of five policies i.e. National Nutrition Policy, National Policy on Older Persons, National Policy on Senior Citizens, National Health Policy and National Programme for Health care of the elderly is done.

Out of the 5 policies only two i.e. National Policy on Older Persons and the National Health Policy have sections which mention nutrition and health care. There are very limited funds for the elderly whose population is increasing at an alarming rate. In conclusion there should be revision and up gradation of these policies and nutrition programmes.

PUBLIC HEALTH RESEARCH AMONG ELDERLY IN INDIA: A REVIEW OF PATTERNS, DIMENSIONS, DIRECTIONS AND OPPORTUNITIES

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In 2013, 8.3% of elderly populations lived in India, which are projected to increase to 18.3% in 2050. The public health needs of this population have remained unmet due to lack of a comprehensive review of health burden, needs, existing practices and issues.

We reviewed health burden and policy studies among the elderly to understand (a) the main themes and patterns, (b) study types, methods and designs and (c) approaches and frameworks used investigated by researchers. A total of 16,768 studies indexed in PubMed (2000 onwards) and 595 studies from EPW (1990 onwards) were screened and quality-assessed. We extracted information from 162 health burden studies and 29 health policy studies for this review.

Near 65% of the health burden studies were epidemiological and 19% were clinical. Most studies were quantitative (85%), with few multi-country studies (5.5%); NCDs (12%), mental
health (12%) and cognitive health (12%) accounted for a majority. While early literature focused on conventional themes, later studies included emerging areas (disability, mental and cognitive health). Health policy research highlighted debates on state and legal processes versus families, changing social relationships and aspects of social assistance programs.

Frameworks for elderly health need to go beyond morbidity classifications to include disability, dependency and functioning aspects. Our review showed that despite national programs, the burden of care is borne predominantly by families, with little support from institutions.

**A STUDY ON HEALTH AND INCOME AMONG ELDER POPULATION IN URBAN SLUMS CHENNAI**

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In India, the population of people aged over 60 years is growing faster than any other age groups. It is an emerging issue in a developing country like India and it makes alarm for planners and government to improve the quality of life among elder population to reduce the burden on health, hygiene and safety related aspects.

This paper mainly discuss about the problem related to health and income with special attention towards elder person those who live in urban slums in Chennai. Pollution, Water Scarcity, Un-hygienic environment, inadequate food, cause major problems among elderly people.

This study involves holistic approach to understand the Condition of people, Source of Income, Social Security, Living pattern or Standard of Life, Environment, Health and Family welfare and brings out the need of elderly population. Income is very low among these elderly people, because, most of them work in in-formal sector. Most of them depend upon their Daughter(s) and Son(s) to fulfil even their basic needs. Urbanisation play a major role in life of elder persons as there is no proper job vacancy after attaining the age of Sixty years and they are not treated properly by their kins & kids.

Majority of respondents have very low income and less social security. Poor environment and unhygienic condition of life leads to health problems among these populations. Welfare activities are not set out for this elder people.

**HEALTH SEEKING BEHAVIOR OF ELDERLY: COMPARATIVE STUDY ON INDIAN PERSPECTIVE**

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Elderly represent a major part of the entire Indian population and is likely to be 60% by 2050. Many older adults have various medical conditions and their buying behavior for medical facility also vary across various geographic locations. This study was undertaken in comparative dimension between elderly people south India and north India focusing on two states. A total of 114 elderly aged 60 years and above were selected from Karnataka state of Southern India and Chhattisgarh state of Central India. Convenient sampling method was used and primary data were collected through administration of questionnaire. It was found that the perception of heath seeking behavior varies differently on various parameters across both the geographic areas, similarities found in the perception regarding the set aside savings for health expenses. The study demonstrates the relevance of consumer style for health–related behavior.
GERIATRIC HEALTH IN INDIA: CONCERNS AND SOLUTIONS

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Ageing, which is an inescapable reality of the human existence on the planet earth, plays a crucial role in the global demographic transition. India’s elderly population has already crossed 100 million mark during 2011.

Elderly people suffer from dual medical problems, i.e., both communicable as well as non-communicable diseases. They are highly prone to mental morbidities due to ageing of the brain, problems associated with physical health, cerebral pathology, socio-economic factors such as breakdown of the family support systems, and decrease in economic independence.

The rapid urbanization and societal modernization has brought in its wake a breakdown in family values and the framework of family support, economic insecurity, social isolation, and elderly abuse leading to a host of psychological illnesses. The socio-economic problems of the elderly are aggravated by factors such as the lack of social security and inadequate facilities for health care, rehabilitation, and recreation.

However, current statistics for the elderly in India gives a prelude to a new set of medical, social, and economic problems that could arise if a timely initiative in this direction is not taken by the program managers and policy makers.

With this background I want to highlight the medical, psycho socio and economic problems that are being faced by the elderly people in India, and strategies for bringing about an improvement in their quality of life most ideal way.

BENEFITS OF AROGYA CARD: A COMPARATIVE STUDY ON SATISFACTION LEVEL OF PATIENTS IN A TERTIARY HOSPITAL WITH SPECIAL REFERENCE TO ELDERLY PEOPLE

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A myriad health cards are in existence to reduce the treatment burden in hospitals. Kasturba Medical College Hospital, in Manipal Karnataka, has introduced one such card by the name Manipal Arogya Card. Any patient who registers for the scheme can avail the benefits of the Arogya card. The present study explores and compares the satisfaction level of the card holders, giving special thrust to elderly patients. A questionnaire cum interaction based method was adopted to collect information from 130 respondent of various age groups who are members of Manipal Arogya Card scheme. And was entered for statistical analysis in statistical Package for Social Science software (SPSS). The age groups were segregated among two, i.e. below 60 and above 60; from which the difference of satisfaction was derived. It is found that the satisfaction level between the people of age below and above 60 are tend to be more satisfied than those below 60. Majority of the respondents perceive the scheme helpful to cut down the medical expenditure. This scheme can be an example about how a social initiative can hold up the needs of the needy and be tool to empower the elderly, as it does provide satisfaction and also helps them to reduce their medical expenditure and make them less dependent.
EXCHANGE PATTERN AND RELATIONSHIP OF RURAL ADOLESCENTS WITH THEIR GRANDPARENTS

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The present paper focuses on the exchanges and relationships between grandparents and grandchildren. Data were collected by interview method from 104 young adults in Annamalaiputhur of Tirunelveli District. All those who were in the age group between 14-24 years were included. Thus it turned out to be a census study. The findings reveal that the relationships between grandparents and grandchildren were affectionate. One third (33.65%) of the grandchildren extended services such as emotional caring to their grandparents. 7.70% of the grandchildren extended materials to their grandparents. A few (8.65%) of the grandchildren extended money to their grandparents. Half of the grandchildren did not extend anything to their grandparents. More than half (54.8%) of the grandchildren received money from their grandparents. One third (30.7%) of the grandchildren received material (jewels, clothes during occasions) from their grandparents. One fifth of the grandchildren received services from their grandparents.

INTERGENERATIONAL RELATIONSHIPS:
IN URBAN HOUSEHOLDS OF AHMEDABAD

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Family structure in India has been considered to be the traditional institution to provide support and care to the elderly (Rajan and Kumar, 2003). Changes such as reduction in the number of children a couple has, higher life expectancy of elderly, greater involvement of younger women who have been the chief caretakers of the elderly in economic activities outside their homes, physical separation of parents and adult children due to urbanization, spread of western culture and lifestyle, and growing individualism, among other factors have had their impact on the traditional family system (Rajan and Kumar, 2003; Lamb, 2009). Though past studies and recent surveys on older adults in India have focused on living arrangements, health and social engagement parameters, narratives from older persons themselves have been seriously lacking from the demographic literature in India. Specifically, the proposed study will make significant departures from the existing body of literature by adopting an ethnographic approach. The study with the help of semi structured questionnaires and interviews aims to delineate questions of identity, social networks, body & sexuality, gender ideologies and role continuities in different urban households of Ahmedabad.
ELDERS LIVING ARRANGEMENT AND INTERGENERATIONAL SOLIDARITY IN SOUTHERN TAMILNADU

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Demographic changes show the reducing number of potential care givers for elders. Increasing women workforce, values of individualism, availability and affordability of institutional care, generational mobility in occupation are some factors which creates the necessity to think about elders living arrangement and the relationship bond between elder and adults. Living arrangement determines the social network and social support a person enjoys which will strengthen intergenerational solidarity.

The empirical cross sectional study conducted among 337 elders with children living in six villages of Tirunelveli district selected by multistage random sampling method. Interview schedule is used to collect data from elders. The explorative study used quantitative techniques for analysis of data by using SPSS.

The variation in the elder’s living arrangement influenced by the variables like sex, marital status, income, health status of elders, number and gender of children. And the study showed the significance between living arrangement and intergenerational solidarity and its components like children’s proximity, contact, household tasks participation of children and abuse of elders.

The study confirms the changes in structural living arrangement pattern of elders. Though elders ‘living with children’ promotes intergenerational solidarity, structural changes does not severed the intergenerational solidarity.

COUNTERACTING AGING EFFECT BY INTERGENERATIONAL INTERACTION

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Intergenerational interaction is identified as a counteracting force on the physical and social psychological fatigue created by aging. Interviews among 100 pensioners (65+) from four treasuries in Kozhikode District enquired into the physical, social and psychological fatigue felt by them and their extent of intergenerational interaction through various ways. Analyses reveal that there is high association between the variables in reverse direction. The study indicates that intergenerational interaction is a non medical method to reduce the physical, social and psychological fatigue of the elderly.
SURVIVAL STRATEGY OF ELDERLY HEADED HOUSEHOLDS OF RURAL WEST BENGAL: AN SNA APPROACH

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In course of daily life of rural people, situations often arise when a need is faced by a household which it has to fulfill immediately even by taking help from others and thus they gradually build up social networks among themselves. These social networks work at household level and play an important role as a kind of strategy for survival of the rural people. Several gerontologists have studied on both involuntary and voluntary ties of elderly people from the point of well-being of their mental and physical health. In West Bengal, socio-economic and political / organizational changes have been taken place. Redistribution of land through land reforms, increase of wage rate and effective functions of Gram Panchayat have been as a source for the rural people in West Bengal. Under the circumstances, the present study intends to apply SNA approach for studying survival strategy of elderly headed households in rural West Bengal. The findings of the study will be useful to policy-makers for understanding importance of elderly heads of the rural households in social networks needed for survival strategy.

AGEING AND ECONOMIC DEPENDENCY IN INDIA

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In India, as a result of increasing life expectancy, decreasing fertility rate, etc., the share of older population will increase dramatically over the next four decades. The share of India’s population aged 60 years and older is projected to climb from 8 percent in 2010 to 19 percent in 2050 (UN, 2011). This paper closely examines the profound shift in the elderly proportion and its economic impact on the basis of various dependency measures. The data used for the study is obtained from the latest Census 2011 and from the 68th round Employment Unemployment Survey conducted by NSSO (2011-12). Though 65 percent of the total population of India is depending over the remaining population as per the latest census data, the actual dependency ratio based on NSSO data refined by considering the actual labor force and employed persons gives a different picture. For, more in-depth understanding, age group wise economic dependency and labor force dependency was also analyzed. The severe economic dependency among working ages groups which indirectly leads to the diminishing support of elderly in India is also discussed. Also this paper emphasis the need of skill development for elderly suitable jobs for them to be active in the labor market, and hence to eventually empowering the elderly.
ARE AGED A BURDEN OR AN ASSET?
ASSESSING FINANCIAL CONTRIBUTION OF ELDERLY WORKERS IN INDIA

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Ageing of population is fast becoming a major policy challenge, imposing a substantial burden on society and the state. The failure of both these institutions to provide socio-economic security has forced many aged workers to postpone retirement. Ironically, this enables the aged to contribute financially towards household expenditure. This paper estimates the financial contribution of elderly to their household and examines to what extent such contributions reduced poverty levels in different Indian states.

The analysis uses data from the 68th round NSSO survey on “Employment and Unemployment” (2011-12). Based on data on current weekly economic status we have calculated monthly earnings of aged workers in each household. This is used to estimate percentage share of aged income in household expenditure, and household per capita expenditure less earnings of elderly. The latter is used to estimate poverty levels (using the Head Count Ratio), which is compared with poverty estimates made by Planning Commission (based on household per capita expenditure levels). The level of financial contribution and reduction in poverty levels is mapped to study spatial patterns.

We find that elderly makes a statistically significant contribution to households; this helps to reduce poverty levels in most states. State-wise variations in the importance of such contributions are related with migration patterns, demographic structure and growth rates.

WORKFORCE PARTICIPATION OF ELDERLY IN INDIA:
IS IT A SIGN OF HEALTHY AGEING?

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The workforce participation of elderly is decreasing over the period of time; but on the other hand, the labour market is been subjugated by elder persons over the period. Both the statements are, in general view, contrary to each other. In elaborating, it means the non-working elderly population is growing, and in workforce percentage of older workers is rising continuously in comparison to the adult workers. And being older they are more prone to be weak by health and economy, which further leads disturbed mental health.

Methodology:

Paper is based on the secondary data source: SAGE data, India – 2007. This data is collected by using multistage sampling technique. To move in directed issues bivariate and multivariate analysis is done with the help of SPSS software.

Results and Conclusion:

The data has shown that around 30% of older population is still working and near about 52% of them ever diagnosed depression. Nevertheless, when enquired about the present memory health, it is found that only 22% replied positive. The study also includes the various reasons behind the participation in labour market. And being older, both, the type and duration of work are important to be focused.
RISING CHALLENGES AND DIMINISHING HOPES: 
A STUDY ON THE CASHEW WORKERS OF KERALA

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Ageing is a pervasive global phenomenon which no human being can escape and the percentage of elderly population is increasing rapidly. It begins at birth and ends with death. This inevitable and irreversible process of ageing affects both physical and psychological well-being of the individual. Despite Kerala’s remarkable achievements in social sector; improvement in quality of life is not distributed uniformly. Explorations of the life of traditional workers indicates high rates of illiteracy, poverty, morbidity, fertility, gender-based violence, caste-based inequities and lack of access to health care. The present study focuses on the health hazards of the women folk of Kerala who are employed in the cashew industry, and tries to shed light on these facts through a gerontological perspective as the health of a community to a greater extent depends on the life style (physical activity, nutrition, mental stimulation, etc.), safe environment, social support and a regular health care system.

In essence through this study it seeks to enhance the self-esteem, raise consciousness, empower and validate recipients of treatment or services. Thus through this feminist gerontological perspective it is intended to pressurize organizations or Government to respond to the needs of older women and to eliminate stereo types, societal attitudes and to broaden the range of roles available to the aging women.

HEALTH AND INFANT MORTALITY TRENDS: A SOCIOLOGICAL STUDY

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Assuring public health services is primary duty of every government and as such, the government has taken steps to maintain public health, by opening health centres, hospitals, mobile hospitals, organizing mass awareness camps on health and so on. In this paper we will discuss Infant mortality rate is an excellent indicator of the socio-economic development of a country. India is facing severe problems related to the infant mortality. The statistics revealed that neonatal death rate is the highest in the world (43 per 1000 live births). A quarter of world’s neonatal deaths (one million) each year take place in India, mostly at home (65.4% of all births and 75.3% of births in rural areas occur at home). It may be noted that despite the great importance of the subject, no information is available regarding the details of the causes of deaths. As discussed above, infant mortality is a major health problem and government is more concerned towards solving such health problem by reducing infant mortality rate. Further, the reasons for infant mortality include socio-cultural beliefs, education of mother, regular health check-up, lack of proper health care facilities, etc. Further paper will evaluate the child mortality patterns which do vary for the urban and the rural areas. The relation between the female and male mortality rates hold quite strongly in rural areas whereas in the urban areas these are weakly linked. It can be concluded that infant mortality is the result of socio-economic characteristics of mothers and households, demographic characteristics of children, and health-care behaviour of mothers, availability of health care facilities, etc. will be evaluated and concluding remarks and suggestions will be carried out in this paper.
EFFICACY OF INDIVIDUAL VS GROUP COUNSELING ON ADULTS WITH DIABETES MELLITUS

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It is a common assumption that the knowledge of diabetes will often motivate the subjects to keep levels of diabetes under control. From a total sample of 180 diabetic male and female subjects a select sample of 30 (Mean age 59.6yrs) were subjected to Individual (n=15) and Group counselling (n=15) sessions. Based on the background information of individuals, psycho educational programmes at individual and Group levels were extended along with Meditation and Pranayama. Results revealed that majority of subjects with diabetes mellitus were benefited by intensive group counselling sessions along with regular dietary measures, physical measures, meditation and pranayama compared to individual counselling with meditation, pranayama, dietary and physical exercise.

DIFFERENCE BETWEEN PREVALENCE OF MULTIPLE CHRONIC CONDITIONS AND SELF PERCEIVED HEALTH STATUS AMONG ELDERLY IN INDIAN

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Ageing population is now global phenomena. In this study we examined the prevalence of multiple chronic conditions and try to find Gender differential in self perceived and diagnosed health status among older adults. And find the association between different socio-economic and demographic factors and self-perceived and diagnose health of older adults.

For the present study we used study on global ageing and adult health (SAGE) WAVE-1 data, which was conducted during 2007-2010 and try to collect data on quality of life and various other domains of adult life including general and chronic health and health care utilization, work history, socio-economic, family support and impact of care giving etc. Bi-variate and multivariate analysis has been done.

The result indicates the prevalence of single chronic condition among age group 45-65 is 25.74 while 13.98% are suffering from 2 or more than two chronic condition. In 65 and above age group the prevalence is 22.80 and 16.13% respectively.

The prevalence of good self-perceived health is higher among male as compare to females. People with lower income group reported lower self-perceived health as compare to richer.
SELF RATED HEALTH, MORBIDITIES AND HEALTH CARE UTILIZATION AMONG ELDERLY POPULATION: A STUDY OF RAJASTHAN

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The demographic transition followed by epidemiological transition has brought tremendous changes in the disease profile of the country. The burden of diseases is gradually shifting to older adults; however, the provision for geriatric care is yet to receive the priority. The present study aims to assess the self-rated health, prevalence of multi-morbidities and health care utilization among elderly aged 50+.

Bi-variate and multivariate analysis have been used on primary data collected from Rajasthan (400 elderly).

The results indicate that 40% of elderly have rated their health as good or normal followed by 19% who have poor self-rated health. 31% of the elderly were multi-morbid and less than 30% have no disease. The poisson regression estimates shows that the incidence rate for prevalence of multi-morbidities is higher among elderly aged 60+, non-poor and living in a joint family. 50% of the elderly were not going for a regular health check-up. Government hospitals were the most preferred health care facility for major ailments but for minor ailments, home remedies were preferred; 31% of the morbid elderly did not seek any treatment.

The study revealed that majority of the elderly have good self-rated health but there is a need to improve the health care utilization.

A SOCIOLOGICAL STUDY ON THE HEALTH STATUS OF ELDERLY PEOPLE IN HUBLICITY, KARNATAKA

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The present study aims to analyze the health status of elderly people in Hubli city, Karnataka. The population of the older (60 plus) is rapidly increasing. Due to the increasing moral and social support from their family and developments taking place in the medical field the life span or life expectancy of the elderly people is gradually increasing and people are living for longer years. Most of the old age people depend upon their family and children. Family support is essential to elderly and should provide quality of life to them because quality of life is the key factor of their health status. The present research highlights about the issues related to the elderly people, their health status, problems, the support given by their family, community, facilities provided by the government and private sectors. In the present study 100 elderly respondents were selected through random sampling.

The findings reveal that, there has been marked change in the treatment of the elderly people. Majority of the elderly are satisfied and are happy by the support given by their family, government, private sectors and community. By encouraging them their health status will be improved and enhanced as they are the productive members of the society.
IMPACT OF MIGRATION ON HEALTH OF THE ELDERLY

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Migration being an important factor of demographic changes, it has both positive and negative consequences on the people. The migration leads to various negative effects on both migrants and non-migrants at the place of residence as well as at the destination place. The present paper addresses the negative effects of migration on elderly health. The study area selected is the Katral village of Bijapur District, Karnataka. It is famine hit area, due to scarcity of rain, people do not grow anything in their field and landless labors face severe problems in their mundane life; it is inevitable to the youngsters to cope up with the livelihood challenges so the migration takes place. The elderly parents hardly get migrated due to their age and disability and they were left behind by their youngsters. So, they face several problems, among which the health related problems are severe in nature. The health and psychological problems faced by elderly in these villages will be explored in this paper.

The results show that a major proportion of the elderly were out of the work force, partially or totally dependent on their young ones. They suffer from multiple health problems with a sense of negligence by their family members. As the elderly face health and caretaking problems and health expenses are unaffordable by the migrants, so the Government or NGO’s should seriously think about this issue with some policies to improve the conditions of left behind elderly.

GLOBAL CHALLENGES OF DEMENTIA

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Dementia is emerging as a major public health problem along with the demographic changes occurring globally. Around the world, there are over 44 million people estimated to be living with dementia. Many factors like urbanization, industrialization, and population migration, changing family systems; changing role functions and growing individualism negatively affect the care of the elderly people with dementia.

The economic impact of dementia is emerging as a global challenge. Even developed nations are finding it difficult to cope up with the increasing cost of dementia care. Families continue to play the most significant role in providing care even in developed countries. However families need support like financial incentives, subsidized medical expenses, better living arrangements, provision of day care or respite care, health insurance coverage etc.

There are some common denominators like financial, emotional and practical difficulties exist when we look at dementia as global problem. But specific issues related to dementia care and services have to be sorted out at national or regional levels. Many of the developing countries can take the activities of Alzheimer’s and Related Disorders Society of India (ARDSI) since 1990’s as a model for developing dementia care and services. The major focus of the presentation will be making dementia as a health priority, challenges in developing dementia care and services, strategies to overcome the multifaceted impact of dementia, need for networking, training and cross cultural research. The issues and implications will be discussed.
STATUS OF AGEING IN KERALA: AN UPDATE

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There is wide-spread recognition of the phenomenon of population ageing in Kerala which has led to numerous contentions in policy circles as regard the preparedness to cope with the emerging issues and challenges due to population ageing in the state. This is an update based on a state-wide survey conducted to understand various facets of well-being among elderly namely, socio-economic and demographic profile, health status, living arrangements along with the status assessment of the existing welfare and social assistance program for the elderly in the state. Elderly living with children need not be counted as a virtue in Kerala as more than quarter of them live with unmarried children which is higher in case of male elderly. Unmarried female children have a greater likelihood of co-residence with elderly in Kerala when compared with unmarried male children. Reported health status does not seem to be adverse except among those 70 and above, which resonates strongly with the reported levels of disability. As regard awareness of welfare schemes, more than half are aware of things wherein there remains a female disadvantage. In terms of receipt of benefit, hardly a quarter of them are privileged and in terms of possession of documents, a lot needs to be done to attain universality. Schemes and programs for elderly welfare need strengthening in terms of inclusivity and universality.

PERCEPTIONS OF TECHNOLOGY AMONG ELDERLY (GREEN CARS)

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Technology has been shown to be beneficial to older people, but a digital divide remains. The study explored the elderly perceptions about the green cars and its future in India. We are aware of pollution and its health hazards to people. The study also focused on transportation along with a sustainable path in cities as our foremost need. Local pollution and greenhouse gas (GHG) emissions are global issues. Thus, the introduction of green transport is a current issue that needs to be focused. Presently urban transport situation in India is quite unsustainable.

Air pollution, especially from road transport vehicles are fast turning into the major issues of urban air quality, especially in the developed and developing countries.

The study revealed that government of India is actively taking part in generating the knowledge and awareness in the society. Government of India (MNRE) is also providing the subsidies to the companies, which are taking initiatives to make green vehicles. The study explored the knowledge and awareness of the older people towards green cars and companies and their perception of these cars. The findings also revealed that maximum people are aware of the concept of green cars. Advertisements in T.V., newspapers, and magazines organize many campaigns that helps to create more awareness about their products to the general public.
HEALTH AND SOCIAL PROBLEMS OF THE ELDERLY PEOPLE: A STUDY IN DHARWADDISTRICT OF KARNATAKA

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Ageing though is a biological phenomenon; ‘Ageing’ is also a social construct. Alteration in socio-economic status and various health problems harmfully affect an individual’s way of life throughout old age. The main objective of the present paper is to study the health and social harms of the elderly and their approach towards life. Present study is based on primary data and the simple random sampling method has been adopted for selecting sample of the study; more than half of the respondents were uneducated. Half of the respondents felt they were not pleased in life. A majority of respondents are illiterates and had health problems such as hypertensions followed by arthritis, diabetes, asthma and anemia. The respondents suffering from various diseases said that the attitudes of people towards the elderly were that of neglect. The result of the study showed that there is a need for elderly counseling centers that can take care of their physical and psychosomatic needs. The strict rules for eligibility to social safety schemes should be made more flexible to cover a larger population.

DIFFERENTIAL EXPRESSION OF TWO LONG INTERGENIC NONCODING RNAS (LINCRNAS) DURING AGING OF THE RAT BRAIN

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Aging is collectively defined as decline of all physiological activities after the attainment of adulthood or reproductive maturity in mammals. Brain functions depend on differential gene expression patterns in different regions of the brain. Recent literature suggests that brain expresses a large number of different classes of regulatory sense- and antisense long noncoding RNAs (lncRNAs). These lncRNAs are usually >200 nt long and are generated from the intronic and intergenic regions of the genome. They are regulated in developmentally, spatio-temporally, and cell type-specific manners. Till date, many of them have been characterized and found to be involved in various neurological processes. Therefore, dysregulation in their expression patterns and functions may lead to many neurological diseases.

Using RT-PCR and RNA *in situ* hybridization, we report that two long intergenic noncoding RNAs (linc RNAs) i.e., 5.5lncRNA and 11.4lncRNA are expressed in the brain in an age-dependent manner with low levels of expression in the immature (4 weeks) and old (70 weeks) and relatively high level of expression in adult (16 weeks) rats. They are differentially expressed in specific neuroanatomical regions, cell-types and sub-cellular compartments of the rat brain during aging, and are localized primarily in the soma of the primary hippocampal neurons. Further, they showed strong induction by *all trans* retinoic acid (atRA), a potent regulator of neurogenesis and synaptic plasticity in the adult rat brain. Therefore, we propose that these repeat sequence-containing lincRNAs may be involved in the functional regulation of the various compartments of the rat brain in an age-dependent manner.
THE ELDERLY AND THEIR CARE PROVIDERS: A SOCIOLOGICAL STUDY OF TWO GENERATION IN TRIVANDRUM CITY

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One of the most significant demographic changes of our time is the rapidly expanding number of older adults in the world population. Better medical facilities, better nourishment and improved standards of public health have all contributed to prolonged life. The predicament of senior adults is that for them with longevity come physical disabilities and emotional insecurity, loneliness, lack of support and care, acute sense of role loss, unhappiness and loss of confidence. In urban settings this change is clearly visible. The pace of urban life does not provide any opportunities to relate to one another in a healthy manner. The study was carried out to assess the nature of care provided to the elderly by their care providers and also an attempt has been made to know the perceptions of care providers, i.e. sons and daughter-in-laws/daughters and son-in-laws.

Results showed that the empirical facts for understanding and exploring the intergenerational care and support to the elderly. Though the concentration of the study is old age population, their care takers are also studied as their support system should be viewed in a holistic way. Support system is mutually functional and therefore the aged and their care givers were taken for the study. Support system contains within the structural and functional elements required for the person to adapt to the environment in the best possible manner. In this context it is worth analyzing the care and support system of elderly which reveal their preferences, requirements and adjustments among the generations at all levels that is fundamental for the existence of a society for all ages.

DIETARY RESTRICTION UP-REGULATES EXPRESSION AND ACTIVITY OF CARDIAC AND SKELETAL MUSCLE INORGANIC PYROPHOSPHATASE IN MICE AS A FUNCTION OF AGE

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Inorganic pyrophosphate (PPI) is generated by ATP hydrolysis in the cells and extracellular matrix, cartilage and body fluids. Fuelling an alternative pathway for energy production in cells, PPI is hydrolyzed by inorganic pyrophosphatase (iPPase) in a highly exergonic reaction that can under certain conditions substitute for ATP-derived energy. We investigated the expression and activity (U/mg protein) of iPPase in cardiac and skeletal muscle of young and old mice subjected to short- and long-term dietary restriction. The expression level of iPPase was ascertained by the Western blot analysis using anti-iPPase and differential polymerase chain reaction using iPPase specific primer. Older mice showed a significant increase in the expression and activity of iPPase as compared to younger ones. Short-term fasting of 24 h increased the expression and activity of iPPase in the cardiac and skeletal muscle of both young and old mice which were reversed upon 24 h of re-feeding them. However, both young and old mice on long-term dietary restriction showed a cumulative increase in the expression and activity of iPPase when compared with their age-matched controls. This might be due to accumulative adaptation to refill energy deficiency of long-term dietary restricted mice in during metabolic reprogramming of these tissues in such animals.
PROMOTER METHYLATION IS ASSOCIATED WITH THE AGE DEPENDENT DECREASE OF CATALASE EXPRESSION IN RAT LIVER AND KIDNEY

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The promoter region of rat catalase gene is characterized by having several CAAAT and GT boxes but lacking a TATA box. Although it has been reported that decreased expression of catalase in old age is associated with elevated level of oxidative stress, the role of promoter methylation in regulating its expression is not known. To understand the role of methylation in catalase expression, we compared methylation state of a specific region of catalase promoter which spans from -268 to +52 with respect to translation initiation codon along with its expression in tissues of young, adult, and old male rats. Methylation status of catalase promoter was investigated by studying the sensitivity of catalase promoter to methylation specific isoschizomers followed by PCR and methylation specific PCR. An elevation in oxidative stress is recorded in rat tissues in old age which is accompanied with a decrease in the expression of catalase. Level of methylation in catalase promoter was higher in tissues of old aged rats in comparison to young and adults. Results suggest that elevation of oxidative stress in rat tissues in old age is due to down regulation of catalase expression as a consequence of elevation of methylation status of its promoter.

ELDERLY WIDOW’S LIVING ALONE: DESERTION, RETRACTION OR LOCATING SPACE?

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Co-residence with children and family care giving is still the predominant pattern for elderly in developing countries (United Nations, 2005), while living alone is uncommon. But several Indian studies (SarasaKumari, 2001) indicate that elderly, especially women do live alone and is likely to increase in future. This is related to higher life expectancy of females, likelihood of more widows due to spousal age difference and living arrangement with only spouses before widowhood. Living alone is considered to be unusual and difficult task. Older individuals living arrangements are largely determined by both preferences and constraints. When the predominant pattern of living arrangement among Indian elderly is joint, why do elderly women break away from the norms and take decision to live in independent arrangements? Are women asserting their need for space and liberty? How do they manage themselves in such contexts in terms of support needs? The elderly widows living alone are not victims of desertions, but responses of their own decisions. In families where there are internal problems, the widow’s opt to stay alone or retract, to reduce the strain, provide space for all children and fulfill parental obligations. Another category of widows who opt to live alone are an emerging group to retain control over their lives, mobility and establish identity in their spheres of engagement. Children, neighbours and siblings are major supportive ties but the overall network shrinks. Widows who live alone and exercise their space and power are living empowered.
THE OLD AGE AND HEALTH STATUS: A REVIEW

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The world is ageing. Today there are some 600 million people aged 60 and over worldwide. This total will double by 2025 and will reach virtually 2 billion by 2050. The majority of the old age people are living in developing countries. That are often least prepared to confront the challenges of rapidly ageing societies. World Health Organisation (WHO), over the past century, life expectancy has increased dramatically and the world will soon have more old people than children. This social transformation represents both challenges and opportunities. Many people develop disabilities in later life related to the wear and tear of ageing (e.g., arthritis) or the onset of a chronic disease, (e.g. lung cancer, diabetes and peripheral vascular disease) or a degenerative illness (THE HINDU 2012). All these features of aging imply that the problems of the elderly will need a special focus and approach.

The paper takes a fresh look at old age health issues in the context of the elderly, using more recent data from several published papers, news papers and project reports. The objective of the paper is to analyse the health status of the aged in India. The review shows all the countries need to prepare to address the consequences of health issues along with the chronic diseases, which requires health promotion and prevention intervention at community level as well as in health care system.

WOMEN, MENTAL HEALTH AND AGING: A GENDER PERSPECTIVE

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Sixteen per cent of the world’s population lives in Indian continent, where its 72 per cent live in rural areas. Literacy, employment, health and morbidity rates vary from its region to region. Urban and rural environments present contrasting pictures with respect to quality of life at any age. Heterogeneity among its populace demands that generalizations about India be made with extreme caution. India is undergoing a demographic transition. When the world of health policy and public health considers the health of women, one tendency is first and foremost to link the well-being of women to that of children and the family, and, legitimately, to the health of society overall. Mainstreaming a gender perspective into the health sector requires a broad-based definition of health for women as well as men that address well being across the life cycle and in domains of both physical and mental health. Mainstreaming a gender perspective needs to be coupled with mainstreaming mental health issues as well, because women disproportionately suffer from mental health disorders and are more frequently subject to social causes that lead to mental illness and psychosocial distress. The concept of ‘ageing’ denotes three dimensions: biological, psychological and social. With this background, the paper makes an attempt to understand mental health and ageing exclusively from sociological perspectives. It also tries to outline a brief literature on the existing as the policy measures and finally, proposes a policy option for the future prospect of the ageing women in particular.
NUTRITIONAL STATUS OF DIABETIC NEPHROPATHY PATIENTS UNDERGOING HAEMODIALYSIS

Anjali and Veenu Seth
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Diabetic nephropathy, one of the complications resulting from uncontrolled diabetes can lead to end stage renal disease (ESRD) in their lifetime and necessitates dialysis. Dialysis can further have an impact on the nutritional status. Hence, the study sought to assess the nutritional status of diabetic nephropathy patients undergoing haemodialysis. The data was derived from 30 Diabetic nephropathy patients undergoing haemodialysis, aged 40-75 years of either sex. Demographic Questionnaire, 24 hour diet recall, Food Frequency Questionnaire and case records constituted the data collection tools.

Dietary intake revealed inadequacies of several food groups except cereal, milk and eggs. Food selection from each group reflected incomplete knowledge, ranging from poor to fair knowledge of relevant nutrients sources. Variable nutrient intake reflected inadequacies of energy, calcium, niacin, folic acid, vitamin A and vitamin C, whereas protein, potassium, phosphorus, thiamine and riboflavin were fairly adequate. Salient findings of the study also revealed anorexia, oliguria and oedema as common symptoms along with several biochemical aberrations.

It can be concluded that subjects of diabetic nephropathy had insufficient nutritional intake. Hence there is a need for nutritional assessment in such patients so that appropriate therapy can be prescribed.

EMERGING SCENARIO IN AN INDIAN HEALTH CARE ECONOMICS

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Traditional economic theory provides a limited tool kit for improving behavior because it assumes that people make decision in a rational way, have the mental capacity to deal with huge amounts of open to manipulation. melding economics acknowledge that people often do not act rationaly in the economics sense. agaist a background of increasing on limited resources , health economics is exerting an influence on decision making at all level of health care.health economics seeks to facilitate decision making by offering an explicit decision making framework based on the principle of efficiency.
AGING, SAVING AND SOCIAL SECURITY IN ASSAM AND WEST BENGAL

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This paper seeks to reflect upon social insensitivity about problems related to aging in India with reference to the plight of victims of various chit fund scams in Assam and West Bengal. India is a large country and huge variation exists in the social behavior and response pattern of people toward aging citizens in different regions and states of the country. Aging is a natural process of human life. It occurs with passage of time and causes body and nerve cell damage, fatigue, disease, infirmity and various disabilities. At this stage every human being needs maximum possible security for survival against odds, risks difficulties of living.

Saving is a common provision for protection against risks and uncertainties of life as well as for secure and comfortable living during old age when people cannot work hard for livelihood. It is for present and future economic security of life. But a number of chit fund scams appropriating hard earned small savings of millions of common people including the old and aged in two Indian states of West Bengal and Assam has been a curse for many with untold miseries and losses in terms of livelihood security and safe living. This paper focuses on such social and economic crime and their impact on livelihood and social security of aging people in Assam and West Bengal.

HISTORICAL APPROACH – A REVIEW ON THE STUDY OF GERONTOLOGY

M. S.Thangam
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Throughout history men and women have clung to life and have used every means available to prolong life. A common theme running through the historical records of all periods and cultures is the search for a way to reverse the ageing process.

This article addresses the historical development of the field of social gerontology and examines the contributions of social scientists. Critical variables determining the status of the aged in different societies and historical periods are outlined including family form, religion, and knowledge base, harshness of the environment and speed of social change.
CHANGING PATTERN OF CAUSES OF DEATH IN ELDERLY – AN APPRAISAL

Karuna Ramesh Kumar, Muralidharpai and Sampath Kumar
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The objective of the study was to observe patterns of disease and death in elderly as a reflection of epidemiological transition reported by WHO. The study was cross sectional and hospital based. All deaths reported in the hospital for one year were reviewed for demographic details, diagnosis, course of disease and cause of death. Whenever postmortem details were available, they were also recorded.

43% of 275 deaths, was observed in patients above 60 years. Heart related ailments and diabetes with complications were leading causes of death followed by infections. Malignancy and liver related disorders including alcoholic liver disease were third common causes of death. The other causes included renal conditions, trauma and poisoning.

The pattern is consistent with change seen globally. The impact of urbanization probably reflects in alcoholic liver disease being the third common cause of death. Trauma as a cause of death was the least common compared to patients below 60 years. The pattern implies a significant burden on the economy as there is a paradigm shift in diagnostics and management. As geriatric population increases, continuous modification of health care services is required to address needs created by changing pattern of disease and death.

QUALITY OF CARE RECEIVED BY THE ELDERLY IN INDIA – A REVIEW

Teddy Andrews
Manipal University, Manipal

With more than 100 million elderly, India is not in a position to meet their needs and provide a quality care through existing care facilities. Based on Vienna and Madrid International plan of action, the National Policy for Older People have significant provisions for elderly care, however, many care programs or measures taken are not comprehensive enough. One side the formal care facilities for elderly are very limited in India and on the other side, elderly dependency ratio is on the rise due to decline in fertility and increase in life expectancy. The traditional Indian joint families, which used to be the main source of providing informal care is undergoing rapid transition and the quality of informal care is drifting. Therefore, the objective of this paper is to take a stock of quality of various forms of care received by elderly in India. This is a scholarly review paper that compares forms of care and support services available for the elderly and generates inferences for further research and design interventions. One of the important inferences made is that the models of care need to recognise the nature of the challenge of ageing populations and flexible enough to adapt to the individual needs and preferences of the people requiring care.
THE PROBLEM OF SOCIAL ADJUSTMENT OF AGED PEOPLE: A SOCIOLOGICAL STUDY

Manjula G. K
Rani Channamma University, Belagavi

India has not yet attained the levels of living of a developed country nor achieved the demographic structure typical of a developed country. The Problems of children and youth and aged, that of nutrition, health, education and employment have been in the forefront. Ageing implies changing of roles. The adult roles have been abandoned. Income, relations, friends, vigour and energy are lost over the course of life. Physical appearance may change and the senses may deteriorate or get weak. New roles which are more suitable to the stage of life are adopted. Expectations of others from them may change. All these changes entail readjustment.

For a well-to-do person advancement in age may mean a period of life when responsibilities are over and when he has freedom to live a life of his own. For a poor aged person it may mean hard work despite poor health. This paper is based on secondary source.

LIFE STYLE OF OLDER PERSONS IN THE OLD AGE HOME

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Old age hood is considered as second childness. The first childness is cared by our parents and the second childness should be cared by their children. But in the modern era the old age people are abused by their children. It has to be reduced and eliminated from the society. In relation to that, a study has been conducted. The objectives of this study are 1. To know the daily activities of the old age people. 2. To find out their health status. 3. To bring out the causes to come the old age home. An Old age Home in Kallidaikurichi, Tirunelveli District was chosen to conduct the study. Sample size was selected through census study method. The researchers used interview schedule and case study for collecting the data. The major findings of this study are (i) Uncaring and isolation are the main reason for old age persons are living in the old age home. (ii) They have peace in this old age home. (iii) Their health and living surrounding had been changed. (iv) They had schedule for their daily activities.
EFFECTS OF EXERCISE TRAINING AND GRAPE SEED EXTRACT ON LEARNING AND MEMORY IN ADULT RATS

Abhijit S, Anudita C and S. Asha Devi
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Oxidative stress (OS), an imbalance between pro- and anti-oxidant systems can modify structure and functions of proteins resulting in impaired proteolysis that can impair cognition. The aim of this study was to evaluate the responses to physical exercise and supplementation of a natural flavonoid on the passive avoidance learning (PAL) and memory, and relate the changes, if any, to protein oxidation and acetylcholine esterase activity.

Experiments were carried out on adult male Wistar albino rats categorized into sedentary (SED), sedentary supplemented with grape seed extract (SED+GSE), swim trained (SW-T), supplemented and swim trained (SW-T+GSE), untrained swimmers (UT) and supplemented untrainees (UT+GSE). Swim exercise and GSE supplementation was for eight weeks and following these rats were subjected to passive avoidance learning (PAL). Acetylcholine esterase (AChE) activity and protein carbonylation (PCC) were assessed in the hippocampus (HC), prefrontal cortex (PFC) and amygdala (AMY).

Fear extinction in PAL was increased in the untrained in contrast to the other groups. Region-specific differences were evident in the AChE activity and PCC level among the trained and supplemented.

Swim exercise and GSE may have therapeutic potential for PAL with a correlation between AChE and PCC suggesting the contribution of protein oxidation in the cognitive ability.

SOCIAL WORK INTERVENTIONS IN THE CONTEXT OF EMPOWERING ELDERLY

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The purpose of this paper is to enumerate the social work intervention for elderly which enable them to adapt to changes arising from old age. The crucial problems of a sense of powerlessness, helplessness, low self-esteem and low self-efficacy possessed by elderly people can be addressed by social work approaches. In response to the social and political changes in contemporary society, it is necessary to change old people from passive clients into active and empowered individuals with a positive self-image. Social work inventions are effective in strengthening elderly people’s contact with the community, eliminating elderly people’s negative self-image, protecting elderly rights, and increasing their capacity to contribute towards society in terms of their life experiences and knowledge. Finding of the study can serve as input to enhance the quality of life of elderly.
HEALTH STATUS OF ELDERLY WOMEN IN RURAL AREAS – EVIDENCE FROM BELGAUM DISTRICT

Shakuntala. I. Madiwalappagol and Dr. Mukta. S.Adi
Rani Channamma University, Belagavi

Today, women are outliving men with a life expectancy of 60+ years which is considerably higher than that of men. As a result they face many social, economic, psychological, emotional, and health problems. But of all these, health problems of the elderly women assume greater importance as it highlights the economic as well as disability component. Healthy elderly women are an asset to the family and society. Good health of the elderly women is determined by a number of factors such as economic status, marital status, living standards, social support, etc. Generally as age advances, the health problems also increase. Multiple health problems are common during old age among elderly women. Usually women neglect their health problems during their young age and even the family members do not take it seriously, particularly in the rural areas.

In this backdrop, the broad objective of this paper is to study the health status of the elderly women in rural areas of Belgaum District, Karnataka. The primary data is collected from 360 elderly women in rural areas through the structured schedules following the multi stage quota sampling method. Besides studying the health status, few policy interventions are also suggested in the paper for the happy living of the elderly women.

RECOVERY OF AGE RELATED MEMORY LOSS: HOPES AND CHALLENGES

Padmanabh Singh, Arpita Konar, Dhiraj Kumar and MK Thakur
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Advancing age is associated with drastic decline of memory and is a predisposing factor for neurodegenerative and neuropsychiatric disorders. Brain aging involves loss of morphological integrity, alterations at the levels of genes, enzymes and hormones, metabolism, oxidative stress, protein processing and synaptic function. Multiple biological scales ranging from genes to neural network and behavior and the individual variability that span senescence associated memory loss have added complexity to the recovery approach. However, recent advancement in neuroscience research emphasizing on the molecular mechanisms not only eliminated the myth of unrecoverable memory loss during aging but also proposed novel therapeutic targets. In our laboratory, we are investigating the role of key synaptic plasticity molecules involved at various stages of memory in scopolamine induced animal model of memory loss as well as in physiological state of brain aging. Our results reveal that both pharmacologically induced model and normal aging are associated with drastic changes in the expression and function of wide array of molecules including chromatin modifying enzymes, immediate early genes, neurotrophins, presynaptic and postsynaptic proteins and neurite growth markers in mouse cerebral cortex and hippocampus. Such molecular changes are well translated into behavioral analysis of age related loss in memory acquisition and consolidation. Our findings open up the possibilities of exploration of these key molecules in recovery of memory loss during aging and disorders.
PARADOXICAL SITUATION OF LEGAL FACILITIES TO ELDERLY: CRIMES AGAINST ELDERLY

Mamta Patel
Dr. H. S. G. University, Madhya Pradesh

The trend of an ageing population has been witnessed in the entire world. It is not difficult to come across reports of the aged people being attacked, harassed, robbed and murdered by anti-social elements, neighbours, domestic servants, and even their own family members. Since this is an insidious problem affecting the whole society, it needs social action. The present work has used the method of content analysis to gain insight into the media reports of the crimes against elderly. This paper attempts to enquire and understand the causative factors, types of crimes and legal facilities to elderly. Result shows that nearly 1/3rd of the elderly victims were victimized by their own family members. The incidents of murders have been found higher than other crimes and prevalent in both urban and rural areas. The prevailing trend of nuclear families is a major reason of increasing crime graph in the country and the lure was cash and jewellery of the victims. Seeking special crime control measures to protect the elderly, the government has asked all states to ensure each police station has a senior citizen cell, toll free help-lines and an interactive websites to monitor the old. But these guidelines will take time to ensure elderly to their safety.

AN UNDERSTANDING OF THE SOCIAL SPACE OF LEFT BEHIND FEMALES: A STUDY OF DOGRA COMMUNITY FROM JAMMU REGION

Neha Gutkar
VNSG University, Surat

This paper attempts to understand the emerging migration patterns in India. Migrants are getting attracted to new destinations because of globalization, urbanization and changes in socio-economic conditions. Confinement of migration in lower socio-economic class can be depicted from emerging migration patterns. Several states in our country are relying on inter-state migration as a solution to cope with domestic shortages of waged labourers. The movement of waged labourers across internal borders is nothing new. However, this paper has focused on left behind women especially from the Jammu region. It has tried to look into the dislocation of identity of women within recognizable habitats towards alien identity in the same region with identical culture and people. Thus, this paper has tried to address the nuances of certain issues in gender studies which have further looked into the ability of women who are trying to cope with their present circumstances in the absence of their male partners who work outside. It has also tried to concentrate the spectrum of research on challenges faced by her for rearing her children, her interaction with the outside world and control over her freedom in the absence of her husband.

The paper examines the relationship between gender and migration. Special attention has been paid to highlight the impact whether positive or negative on the overall situation of women in the absence of their husbands. Here, the context of study has been with respect to the Dogra community of Jammu region as this society is quite patriarchal in nature. Moreover, a good deal of qualitative data was also collected as this study needs to focus on the understanding of society towards left behind females as well as the perceptions of those females (left behind) on their position both in the absence and presence of their husbands.
A TYPOLOGY OF SOCIAL SUPPORT NETWORKS FOR OLDER PEOPLE IN INDIA AND OTHER FAMILISTIC CULTURES

Vanessa Burholt, Victor, C and Dobbs, C.
Centre for Innovative Ageing, Swansea University, UK

This paper considers the support networks of older people in populations with a preponderance of multigenerational households. Current common typologies of support networks may not be sensitive to differences within and between different cultures. Previously, six variables were used in K-means cluster analysis to establish a new network typology for older South Asians. Four support networks were identified: ‘Multigenerational Households: Older Integrated Networks’, ‘Multigenerational Households: Younger Family Networks’, ‘Family And Friends Integrated Networks’, and ‘Non-Kin Restricted Networks’. This paper uses cross-sectional data drawn from 400 elders (Indians, Bangladeshis, Pakistanis, Chinese) living in the United Kingdom (UK). In this paper confirmatory latent profile analysis is used to test the fit of the model to a sample of older migrants in the UK with a preponderance of multigenerational households. The BIC statistic indicates that the model fits the data well. Using network typologies developed with individualistically-oriented cultures distributions are skewed towards more robust network types and could underestimate the support needs of older people from familistic cultures such as India, who may be isolated and lonely and with limited informal sources of help. The new typology identifies different network types within multigenerational households, identifies a greater proportion of older people with vulnerable networks and could positively contribute to service planning.

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