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AGEING & SOCIETY : THE INDIAN JOURNAL OF GERONTOLOGY

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Dr. Indrani Chakravarty

Calcutta Metropolitan Institute of Gerontology

E-1, Sopan Kutir, 53B, Dr. S. C. Banerjee Road, Kolkata - 700 010

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OBITUARY

“REMEMBERING ROBERT BUTLER:

Esteemed Gerontologist & Psychiatrist”

Dr Robert Neil Butler died of leukemia on Sunday, July 4, 2010 at Mt. Sinai Medical Center in New York at the age of 83. His death is a great loss not only to those he befriended of different ages, even years younger than him like me, but also for many with whom he worked during his unparalleled career in the field of ageing and influenced with his wisdom and expertise. Recognized as a consistent champion for the possibility of vibrant old age, his work which pertained mainly to America, however, had impact across the countries. I and many others in different parts of the world had opportunities to learn from him through personal communications, interactions at conferences, and in professional meetings. His publications, papers, presentations and talks are a legacy in gerontology which will continue to guide the present and future researchers, scholars working on ageing issues.

Dr Butler belonged to the founding generation of gerontologists. After receiving his bachelor's and medical degrees at Columbia University, starting his first program in geriatrics in the United States was not an

easy task. For those involved with medicine in the 1960s and early 1970s, the concept of a special field for ageing was absurd. Caring for older people was seen to be aspect of good medicine and for many practitioners it did not warrant any special training or special focus. Starting of National Institute on Ageing in 1975 by Dr Butler was a remarkable initiative and his contribution towards the formation of Mt. Sinai School of Medicine's groundbreaking gerontology department was noteworthy, which led to America recognizing the importance of ageing studies. He continually advocated for older people and helped form as well as lent his leadership to the American Association of Geriatric Psychiatry, the Alzheimer's Association and the New York based International Longevity Centre, which over the years opened chapters in different countries, including India.

Dr Butler's work on social construction of old age, life and activities of older persons contributes to positive revision of ageing concerns. He saw past the entrenched societal myths about ageing and through his writings offered solutions for improving later years. His famous book 'Why Survive? Being Old in America', which won him the Pulitzer Prize in 1976 influenced many colleagues and others interested on old age to plan for later years and focus on ageing policy issues and retirement planning. His interest on moral dimensions of ageing policy, which he shared with me a year back, in particular, has attracted me to review social security issues from a new perspective.

I, like many others, are grateful to him for guiding us on mainstreaming ageing and whenever since last few years I do programs which celebrate age, I reflect on how his works taught me new ways of making ageing process an achievement and an opportunity. I agreed with him on many occasions that the medical profession needs to change its perspectives on aging, bring about a radical thinking from a disease oriented, frailty linked understanding to the strengths, resilience, coping which the present generation of longer living people represents. He rightly advocated for recognizing the vigorous potential of growing older population to live well, healthily and happily and not just survive the last part of the human life cycle. No doubt Dr Butler is acknowledged as foremost champion for rights of older people.

Robert Butler invented the term 'ageism' while bringing attention to age discrimination which we experience in our societies. His work discussed the widespread negative attitudes that exist in varied forms towards older people in social and economic institutions. He was a powerful voice, calling for major changes in perceptions, actions, programs and policies on ageing during the 1970s and the early 1980s saw a positive change in American society, in shifting of public opinion on old age, on social security measures, in nutshell bringing about a positive social change towards old age and older persons.

His contribution to the development of geriatric medicine cannot be undermined. With his persuasion and taking on the role of educator in the field of ageing, he rallied for better healthcare for older persons, for improving quality of life of older people and was an inspiration for me to base my activism and goal of my voluntary organization, Development, Welfare and Research Foundation in India on working for improving quality of life of people as they age. My tag line 'little things matter' is an initiative to promote his vision and share his wisdom on how to maintain and improve quality of life of older persons, create accessible paths for healthy and purposeful living at any age.

The value of pioneering work of Dr Butler in geriatrics and psychiatry can be judged by the tremendous growth and prosperity that National Institute on Ageing and the International Centre on Longevity achieved over the years. His influence in gerontology in America and overseas is further reflected in formation of the U.S. Senate's Special Committee on Aging in 1980's, work in the Commonwealth Commission on an Aging Society and with his appointment as the Chair of the 1995 White House Conference on Ageing. His passion for geriatrics and gerontology, including social issues since last few decades made him a powerful spokesperson to enact health reforms and social security measures under different President's of America. With President Clinton, Bush and Obama he shared his concerns on the plight of older persons and advocated at national and international forums, at United Nations for making the world a better place in which to age.

Dr Butler's recent works touch on ageing issues in the twenty-first century. Meeting him few times in the last couple of years, I had the opportunity to discuss his two latest books, *The Longevity Revolution* (2008) and *The Longevity Prescription* (2010). While the former received good reviews, his latest publication is becoming popular after his death. Its depth, insights and radical messages on how we are being affected by longer life expectancies, healthier and resourceful populations, make us realize more than ever before the great contribution of my and for others as well, teacher, mentor, friend, Bob as we fondly called him.

Indeed, individuals, organizations, institutions and countries remember and will continue to recognize Dr Robert N Butler for a life well lived from 1927 to 2010, as an intellectual, scientist, scholar, undaunted optimist gerontologist giving direction to ageing studies, acceptance of older persons needs and recognition to their rights. I and many others will miss his constant support and encouragement to our work in giving the field of ageing a special place and status in our countries, region and the world.

By Dr. Mala Kapur Shankardass*

* Associate Professor, Maitreyi College, University of Delhi (South Campus), New Delhi 110021, India; Chair for Asia of International Network for Prevention of Elder abuse; Managing Trustee : Development, Welfare & Research Foundation. Email mkshankardass@gmail.com

AGEING AND FAMILY SUPPORT OF ELDERLY IN SOUTH INDIA

A.K. Ravishankar*

ABSTRACT

Background: *The increase in the absolute and relative numbers of the India's older population rank among the most important demographic developments of 21st century, even though it is still in an early phase, however, it raises special challenges for the country for the next forthcoming century.*

Methodology: *The present paper is based on the report on 'Morbidity Health Care and Condition of Aged' released by NSSO during 2006.*

Objectives: *An attempt was made to explore the prospects of population ageing, the socio-economic profile of the elderly and the system of family support of the elderly in the southern region of India.*

Discussion: *The share of people aged 60 years and above to the total population was highest in Kerala (10.5 percent), followed by TN (8.8 percent). Invariably in all the southern states the elderly females were out number than the male elderly population. The rural areas had more number of elderly populations than urban areas. Aged females were out numbered both in rural and urban*

* M.A., M.Phil., PhD., Senior Lecturer, Department of Population Studies, Annamalai University, Annamalainagar – 608 002, Tamilnadu, INDIA, akravishankar.pop@gmail.com

areas in all the parts of south India. It indicates the higher expectancy of life for females. In India, about 65 percent of the aged population had depended on others – partially or fully – for their livelihood. This proportion was little higher for rural elderly population (66 percent) and slightly lesser for urban elderly people (63percent). However a wide variation was recorded between the urban female elderly fully dependent populations in the southern states. In south India, more than 95 percent of the elderly people were supported by their own spouse, children and grand children, irrespective of their place of residence and sex. It shows the strength of Indian custom of respecting and taking cares of the elderly people.

Keyword: *Ageing, Economic independence, Living arrangement.*

Population ageing is the most significant result of the process known as demographic transition. Population ageing involves a shift from high mortality/fertility to low mortality/fertility and consequently an increased proportion of older people in the total population. Many of the governments of developing countries, until the early 1980s, perceived that population ageing was an issue only among developed countries. However, as a consequence of their rapid fertility declines over the past few decades, these developing countries have been increasingly aware of various population ageing problems (United Nations, 2002).

A total of 418 million persons were at age 65 and over in the entire world and approximately 60 per cent of these elderly persons were residing in developing regions, and this proportion increased by 7.7 percentage points in the second half of the 20th century. In Asia the population aged 65 and over was 216 million in 2000, which corresponded to 5.9 percent of the total Asian population. This proportion in Asia was considerably lower than in Europe (14.7 percent). Owing to the large population size in Asia, however, the elderly residing in the Asian countries amount to 51.6 percent of the aged population of the world as a whole. According to the 2000 United Nations population projections, this percentage would be expected to rise to 57.9 percent in 2025 and to 62.1 percent in 2050 (United Nations, 2001).

The ageing trends of the Indian population have started gaining credence in the debate on an interface between emerging socio-demographic issues and the country's economic future. Today, it is fairly established that the country's population replete with faster ageing prospects and its attendant problems, due to sustained decline in fertility and adult mortality. According to the latest estimates, the Indian aged population is the second largest in the world. India has a

substantially large sixty and above population which appears smaller only proportionally. In absolute number it exceeds 75 million in 2001 which is about 7.2 percent of the total India's population. The recent UN projections reveal a remarkable four times increase in the number of ageing population in the country (324 million in 2050) by the middle of the 21st century. These demographic facts and trends make the elderly in India an increasingly important segment of the population pyramid in the coming years.

Further, this shift in the age structure coupled with rapid social changes (gradual breakdown of the traditional family system) and ever increasing financial constraints at the national level is likely to pose serious problems for the elderly. Under this circumstance the present paper has made an attempt to investigate the Socio-economic status and family support of elderly population in Southern India.

The objectives of this research is to explore the prospects of population ageing in the southern region of India, and to study the socio-economic profile of the elderly and the support system of the elderly in the Southern region of India.

The data for the study were drawn from NSSO 2004 report. The total elderly persons surveyed for this study was 7835 (AP 2183; Karnataka 1529; Kerala 1766; and Tamilnadu 2357) from 16392 households. In the study, those who were of age 60 years and above were considered aged (aged, ageing, elderly, older etc are all used interchangeably and represent in 60+ age brackets). 'Morbidity and Health Care' schedule in the Sixtieth round of NSS (January-June 2004) was used to collect the information relating to aged persons.

TABLE No. 1 ELDERLY POPULATION IN INDIA BY SEX 1901-2021

CENSUS YEAR	POPULATION 60+ (in millions)		
	Persons	Males	Females
1901	12.06	5.50	6.56
1911	13.17	6.18	6.99
1921	13.48	6.48	7.00
1931	14.21	6.94	7.27
1941	18.04	8.89	9.15
1951	19.61	9.67	9.94
1961	24.71	12.36	12.35
1971	32.70	16.87	15.83
1981*	43.98	22.49	21.49
1991*	55.30	28.23	27.07
2001**	75.93	38.22	37.71
2011	97.24	46.98	50.27
2021	141.80	68.26	73.56
2026	171.66	81.88	89.79

Source: Office of the Registrar General, India.
* Excludes figures for Assam in 1981 and J & K in 1991 where the census was not conducted.
** Excludes 3 sub-divisions of Senapati district of Manipur

It is observed from the table 'Elderly population in India by sex 1901-2021' that the elderly population in India was continuously increasing from the beginning of the 20th century. Their magnitude, either in terms of number or share to total population is found to rise gradually. At the beginning of 20th century about 12.06 million people were in the age of 60+ years. At the middle of the century this elderly population increased to 19.61 million (1951). In the next thirty years (1951-1981) the aged population has increased by more than double as it was in

1951 census (43.98 million). This population was further increased to 55.3 million in 1991 and at the turn of this century, about 75.9 millions are elderly Indians, making up about 7.7 per cent of the total population and are expected to be 171.6 million (around 12 per cent) by 2026 (CSO, 2006).

Sex ratio is found to be adverse to women in the Indian population. But sex ratio in elderly population is expected to rise at faster rate than the sex ratio in total population over the next 16 years. The sex ratio in the population aged 60+ which was 928 as compared to 927 in total population in the year 1996 is projected to become 1031 by the year 2016, as compared to 935 in the total population. The rising sex ratio is due to increase in life expectancy of the females. The population of females aged 60 years and above which was 37 million in 2001is likely to go up three fold in 2026 (90 million). The population of males, which was 38 million in 2001, is projected as 82 million in 2026 (more than two fold). This clearly shows that, reversing the current situation there will be more females aged 60 years and above as compared to men of the same age.

TABLE No. 2 PERCENTAGE OF ELDERLY POPULATION (60+) IN SOUTHERN INDIA, 1991-2001

Southern States	**1991***	**2001****
Tamilnadu	7.43	8.83
Kerala	8.81	10.48
Karnataka	6.87	7.69
AP	6.65	7.59
India	**6.67**	**7.45**

* Centre for Monitoring Indian Economy (CMIE), India's Social Sector, Feb. 1996 p.2
** Office of the Registrar General, India, 2004

The table 2 reveals the percentage distribution of elderly population in southern parts of India during two census periods. The share of people aged 60 years and above was increased during 1991 – 2001 census period in all the southern states. According to 2001 census, Kerala had the highest proportion of elderly population (10.48 percent) among all the states in India, which was increased by 1.67 percent from 1991 census data (8.81 percent). The next highest older population was seen in Tamilnadu (8.83 percent), followed by Karnataka (7.69 percent) and Andhra Pradesh (7.59 percent). However, all these proportions were higher than the all India elderly percentage (7.45 percent).

TABLE No. 3 PERCENTAGE OF ELDERLY POPULATION (60+) BY SEX AND RESIDENCE, IN SOUTHERN INDIA, 2004

Southern States	RURAL			URBAN		
	Persons	Males	Females	Persons	Males	Females
Tamilnadu	8.6	8.7	8.5	7.9	7.3	8.5
Kerala	11.5	10.6	12.3	10.6	10.3	10.9
Karnataka	6.9	7.1	6.6	5.9	5.8	6.1
AP	7.5	7.3	7.7	5.8	5.3	6.4
India	**7.0**	**7.0**	**7.1**	**6.6**	**6.2**	**7.1**

Source: NSS 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

The share of elderly by residence and sex is presented in table 3, it shows a significant R-U difference among the southern states. It discloses that rural areas had the highest elderly population than the urban areas in all the four southern states. Further it is also observed that invariably in all the Southern states the elderly females were out

number than the male elderly population. However, the proportions of female elderly in rural areas were comparatively higher than urban female elderly population in all the southern states. Male-female differences in the proportion of elderly peoples were found to exist and the differences were significant. The share of the aged females was higher than that of the aged males in the urban areas in all the four southern states as in India. Almost the same trends were also observed in rural areas of southern region except Karnataka and Tamilnadu.

It can be concluded that Kerala and TN had more number of elderly population among the southern states and the rural areas had more number of elderly population than urban areas. Aged females were outnumbered both in rural and urban areas in all the parts of south India. It indicates the higher expectancy of life for females.

The expectation of life gives a good idea about the general health status of the people. At a particular age, the expectation of life is the number of years a person is expected to live, on an average, after attaining that particular age. It takes care of the mortality experiences during the whole life cycle of an individual, which depends on the availability of health facilities, nutritional level of the people etc. With the rapid advancement in medical science and technology it has now become easier to control various dreaded diseases, which were the cause of high mortality earlier. This has resulted in a continuous increase in the expectation of life.

TABLE No. 4 EXPECTATION OF LIFE AT BIRTH AND AT AGE 60 BY SEX OF SOUTHERN STATES, 1997- 2001

SOUTHERN STATES	1997-2001			
	At Birth		At age 60	
	Male	Female	Male	Female
Tamil Nadu	64.1	66.1	15.9	16.5
Kerala	70.8	76.2	18.8	20.6
AP	61.9	64.4	15.9	16.9
Karnataka	62.6	66.0	16.0	18.0
INDIA	**61.3**	**63.0**	**16.0**	**18.1**

Source: Sample Registration System (SRS) Office of the Registrar General, India.

The above table gives a picture in relation to the general health status of the elderly population in the Southern states by analyzing the expectation of life at birth and at age 60. Kerala shows the highest expectation of life at birth (70.8 for males and 76.2 for females) followed by TN (64.1 for males and 66.1 for females). At the same time, all the southern states had higher expectation of life at birth than the national average irrespective sexes.

TABLE No. 5 AGE SPECIFIC DEATH RATE FOR THE ELDERLY BY AGE AND SEX, SOUTH INDIA, 2001

AGE-GROUP	TN	Kerala	AP	Karnataka	INDIA
60-64					
Male	29.5	23.7	33.2	25.1	26.5
Female	18.1	10.8	19.2	13.2	18.3
Person	23.6	16.8	25.6	19.0	22.3
65-69					
Male	40.4	36.2	45.6	27.5	44.2
Female	32.6	17.9	29.8	46.0	33.4
Person	36.4	26.2	37.1	36.3	38.6
70+					
Male	85.9	90.6	81.8	85.4	84.5
Female	74.0	73.6	67.8	69.0	69.7
Person	79.8	81.0	74.0	76.4	76.8

Source: Sample Registration System (SRS); Office of the Registrar General, India

The interesting observation made from the above table is that a significant gap between male and female expectation of life at age 60 was observed in Karnataka (16.0 for male; 18.0 for female), and Kerala (18.8 for male; 20.6 for female) than in TN and AP. This is due to the fact that expectation of life at age 60 for females had increased at a faster rate as compared to that for males, particularly during the last decade. The expectation of life at birth as well as at age 60 was quite higher in urban areas as compared to that in the rural areas for both males and females in all the four states of the southern region. This may be due to easier access to better health care facilities in urban places as compared to rural areas in these states.

The above table shows a comparative look at the Age-specific death rates among the elderly population of South Indian states during 2001. The table clearly illustrates that the ASDR was highest in AP (25.6; 37.1) followed by TN (23.6; 36.4) both in the 60-64 and 65-69 age groups. However Age-specific death rate was consistently favourable to the female invariably in all southern states.

The changing household structure is a most prominent socio-economic change with important implications for the elderly. In India the joint family system has been the traditional basis of support for the elderly people in the society, particularly those who have lost their spouses, depend on their children for maintenance. Under the impact of modernization and of increasing independence from the traditional family occupation more and more siblings are moving from the base family to distance place of work. Under this backdrop, this section focuses on living arrangement, type of family support systems and economic independencies of elderly people in southern India.

TABLE NO. 6 PERCENTAGE DISTRIBUTION OF PERSONS AGED 60 YEARS AND ABOVE BY NUMBER OF SURVIVING CHILDREN BY SEX AND PLACE OF RESIDENCE FOR SOUTHERN STATES (2004)

Southern States	No. of surviving Children								
	RURAL			URBAN			TOTAL		
	P	M	F	P	M	F	P	M	F
AP	6.1	6.0	6.3	3.9	2.7	5.0	5.6	5.2	6.0
Karnataka	4.5	3.9	5.2	3.7	2.5	4.9	4.3	3.6	5.1
Kerala	3.9	2.8	4.8	7.8	4.1	10.9	4.8	3.1	6.2
Tamilnadu	4.3	2.5	5.9	7.1	6.2	7.9	5.2	3.7	6.6
INDIA	5.5	5.3	5.6	5.8	4.9	6.6	5.5	5.2	5.9

Source: NSS 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

In India about 6 percent of the aged reported that they had no surviving children during the survey. The proportion of no surviving children ranges from 4.3 percent (Karnataka) to 5.6 percent (AP) among the southern states. According to NSSO 60th round, the proportion of elderly females having no surviving children was more than the number of such males both in urban and in rural areas among all the southern states. A significant R-U difference was appeared among all the southern states except Kerala. Tamilnadu shows the highest r-u difference (4.3 and 7.1 percent respectively) with respect to the proportion of elderly who had no surviving children. In rural areas, the percentage of elderly persons having no surviving children was high in AP (6.1 percent) and was lowest in Kerala (3.9 percent). On the other hand in urban areas, Kerala had the highest population of elderly population (7.8 percent) and Karnataka had the lowest (3.7 percent).

Old age dependency ratio is defined as the number of persons in the age-group 60+ (per 100 persons) to those in the age group 15-59 years. According to 2001 Indian decadal census data, every 100 persons in the working age had to provide support physically or otherwise to 13 aged persons to maintain their daily life in India. The old age dependency ratio was the highest in Kerala (16.53) followed by TN (13.85) among the southern states. Old age dependency ratio of AP and Karnataka was slightly lesser to national old age dependency ratio.

Table No. 7 OLD AGE DEPENDENCY RATIO BY SEX AND RESIDENCE, SOUTHERN INDIAN, 2001

Residence and Sex	TN	Kerala	AP	Karnataka	INDIA
Rural					
Male	14.98	15.53	13.09	13.13	13.59
Female	14.65	17.82	14.51	15.21	14.65
Person	14.81	16.72	13.80	14.16	14.1
Urban					
Male	12.34	14.42	8.94	9.44	9.93
Female	13.04	17.49	10.48	11.05	11.67
Person	12.69	16.00	9.69	10.21	10.7
Total					
Male	13.78	15.24	11.88	11.78	12.45
Female	13.93	17.73	13.36	13.74	13.77
Person	13.85	16.53	12.61	12.74	13.1

Source: Office of the Registrar General, India

The female old age dependency ratio was significantly higher than the male old age dependency ratio in all the southern states except Tamilnadu. In Tamilnadu only a slight variation was observed between male and female old age dependency ratio (13.78 and 13.93 respectively). There was a considerable difference in old age dependency ratios in rural and urban areas. The old-age dependency ratio was comparatively higher in rural areas than in urban areas particularly in AP, Karnataka and Tamilnadu irrespective of sexes. Though Kerala had the highest old age dependency ratio, rural-urban difference was not recorded (16.0, 16.7 respectively).

With the gradual breakup of joint family system and with decreasing financial and other support from their children, the economic status of

the elderly population had become more critical. Financial dependencies among the elderly make their problems more complex and difficult. Many schemes and programmes are run by the government for the benefit of elderly people in order to ensure that senior members of the society do not remain dependent on others and live an independent life with dignity.

Table No. 8 PERCENTAGE DISTRIBUTION OF ELDERLY PERSONS BY STATE OF ECONOMIC INDEPENDENCE FOR SOUTHERN STATES, 2004

State of economic independence	TN	Kerala	AP	Karnataka	INDIA
Rural					
Not dependent	33.9	21.6	31.2	35.2	32.7
Partially dependent	16.2	19.2	11.2	12.5	13.8
Fully dependent	49.9	58.2	56.7	51.9	51.9
Urban					
Not dependent	35.7	31.7	39.5	34.0	35.9
Partially dependent	12.8	16.8	9.8	8.4	11.4
Fully dependent	51.4	50.4	49.8	56.9	51.6
Total					
Not dependent	34.5	24.1	33.1	34.9	33.5
Partially dependent	15.1	18.6	10.8	11.4	13.3
Fully dependent	50.4	56.3	55.1	53.2	51.8

Source: NSS 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

In India, about 65 percent of the aged population had depended on others – partially or fully – for their livelihood. This proportion was little higher for rural elderly population (66 percent) and slightly lesser for urban elderly people (63 percent). While looking to the states wise

analysis, TN (34.5 percent) and Karnataka (34.7 percent) were much better off that more than one-third of the elderly populations in these states were not dependent on others for their daily maintenance than the rest of southern states. In Kerala the proportion of independent elderly population was only 24 percent. Comparatively, the urban elderly populations were more independent in all the southern states than the rural aged people (except Karnataka). The independent proportion was ranging from 31.7 percent (Kerala) to 39.5 percent (AP) among urban aged people and 21.6 to 33.9 percent among rural elderly population.

The proportion who depend on others for their daily maintenance was worse for elderly females than the males. About 72 percent of elderly females both in rural and urban areas were fully dependent on others whereas this proportion of such males was comparatively much less (32.0 percent in rural areas and 30.1 percent in urban areas). However a wide variation was recorded between the urban female elderly fully dependent populations in the southern states; it ranges from 79 percent (Karnataka) to 64 percent (Kerala). Whereas in the rural female elderly fully dependent population, only a slight difference was registered between the Southern States (except in TN). It can be inferred that the economic condition of the elderly is much better among males in general, and more in urban sector.

Table No. 9 PERCENTAGE DISTRIBUTION OF ELDERLY PERSONS BY STATE OF ECONOMIC INDEPENDENCE FOR SOUTHERN STATES, 2004

State of economic independence	TN	Kerala	AP	Karnataka	INDIA
Male			Rural		
Not dependent	48.7	36.1	48.6	54.1	51.3
Partially dependent	15.9	20.4	11.1	13.7	15.2
Fully dependent	35.5	43.2	39.4	32.1	32.0
Female					
Not dependent	19.3	10.2	14.8	14.8	13.9
Partially dependent	16.5	18.3	11.2	11.2	12.4
Fully dependent	64.2	70.0	72.9	73.1	72.0
Male			Urban		
Not dependent	54.3	46.8	56.7	54.5	55.5
Partially dependent	13.9	18.3	10.4	9.7	13.4
Fully dependent	31.8	34.5	32.7	34.9	30.1
Female					
Not dependent	19.3	18.9	24.6	13.8	17.0
Partially dependent	11.9	15.5	9.2	7.1	9.5
Fully dependent	68.8	64.0	64.6	78.6	72.1

Source: NSS 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

A larger proportion of elderly males in urban areas were not dependent on others for their livelihood as compared to those in rural areas while reverse is the case for elderly females. In rural areas, the proportion of elderly males who are fully dependent on others was highest in Kerala (43.2 percent) and lowest in Karnataka (32.1percent). In urban areas, the situation was different with the highest proportion of fully dependent elderly males being 34.9 percent in Karnataka, closely

followed by Kerala (34.5 percent) and lowest being 31.8 percent in TN. But for females, the situation was worse in urban areas with the highest proportion of fully dependent elderly females being 79 percent in Karnataka and the lowest of 64 percent in Kerala.

It can be concluded from the above analysis that in all the southern states, a large proportion of the elderly were economically dependent on others for their livelihood. It is therefore, pertinent to know who are the persons providing economic support to these elderly. It is seen that of the economically dependent aged, a significant proportion depend on their children (78 percent in urban and 80 percent in rural) in all the four states and a sizable proportion depend on their spouses for their economic support at both the points. Invariably in all the southern states only 3 per cent were supported by their grandchildren and the rest (6 per cent) had to depend on 'others', including non-relations.

The proportion of the aged males and females depending on their children for economic support was higher in both rural and urban areas and more so in the males (ranging from 81-88 percent in urban males to 79-87 percent in rural males). The proportion of urban elderly females who depended on their spouses were comparatively higher than the proportion of rural aged females invariably in all the southern states. In contrast, the urban male elderly who depended on their spouses were lesser compared to rural male elderly in all the southern states. Others support a significant proportion of urban aged people in Kerala.

Table No. 10 PERCENTAGE DISTRIBUTION OF ECONOMICALLY DEPENDENT ELDERLY PERSONS BY CATEGORY OF PERSON SUPPORTING THEM, SOUTHERN STATES, 2004

Category of Person Supporting	TN	Kerala	AP	Karnataka	INDIA
Rural	**Total**				
Spouse	10.5	8.5	8.9	10.2	12.7
Own Children	81.9	84.0	81.3	79.2	78.4
Grand Children	2.3	2.0	2.3	3.3	2.8
Others	5.3	5.5	7.5	7.3	6.1
Urban					
Spouse	11.8	9.1	13.4	11.0	14.8
Own Children	77.7	78.1	79.2	79.0	76.2
Grand Children	2.9	1.1	1.9	3.6	2.6
Others	7.5	11.6	5.5	6.4	6.4
Total					
Spouse	11.0	8.6	9.8	10.4	13.2
Own Children	80.5	82.7	80.9	79.2	77.9
Grand Children	2.5	1.8	2.2	3.3	2.7
Others	6.0	6.9	7.1	7.1	6.2
Male	**Rural**				
Spouse	9.9	7.9	10.2	12.5	7.0
Own Children	86.7	85.6	83.5	78.8	85.0
Grand Children	1.2	0.8	1.9	2.6	2.2
Others	2.2	5.6	4.5	6.1	5.7
Female					
Spouse	10.9	8.8	8.2	8.9	15.9
Own Children	78.8	83.1	80.1	79.5	74.6
Grand Children	3.0	2.6	2.5	3.6	3.0
Others	7.2	5.5	9.2	8.0	6.3
Male	**Urban**				
Spouse	5.1	7.4	5.1	6.7	6.0
Own Children	85.6	81.0	88.0	84.7	86.5
Grand Children	2.5	0.0	1.5	2.5	1.8
Others	6.8	11.6	5.4	6.0	5.7
Female					
Spouse	15.2	10.1	17.5	13.2	19.2
Own Children	73.8	76.5	74.8	76.0	71.0
Grand Children	3.1	1.8	2.1	4.1	3.0
Others	7.9	11.7	5.6	6.6	6.8

Source: NSSO 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

Interestingly, in rural areas of Andhra Pradesh, and Karnataka, the number of males who are dependent on their spouse (12.5, 10.2 percent respectively) is more than the number of such females (8.9, 8.2 percent respectively). This situation was reverse in Kerala and TN where the number of female who depended on their spouses were out numbered. Invariably in all the four southern states, the number of females who are dependent on their spouses was more (ranges from 10.1 for Kerala to 17.5 for AP) than the number of such males (ranges from 5.1 for AP to 7.4 for Kerala) in urban areas.

It can be concluded that in southern India, more than 95 percent of the elderly people were supported by their own spouse, children and grand children, irrespective of their place of residence and sex. It shows the strength of Indian custom of respecting and taking cares of the elderly people.

Living arrangements of older people are influenced by several factors such as gender, health status, presence of disability, socio-economic status and societal traditions. Generations of older Indians have found

shelter in the extended family system during crises, be these social, economical or psychological. However, the traditional family is fast disappearing, even in rural areas. With urbanization, families are becoming nuclear, smaller and are not always capable of caring for older relatives. Under this circumstance this section explores the living arrangement of elderly people in south India.

Table No. 11 PERCENTAGE DISTRIBUTION OF ELDERLY PERSONS BY TYPE OF LIVING ARRANGEMENT IN SOUTHERN STATES, 2004

Type of living arrangement	TN	Kerala	AP	Karnataka	INDIA
Rural					
Alone	12.3	2.9	9.2	5.8	5.3
With Spouses only	20.5	8.7	22.6	10.3	12.5
With Spouse & Others	35.9	46.3	30.9	44.8	44.2
With Children	24.8	36.3	31.4	33.4	32.0
With other relations	6.4	4.9	4.8	5.3	4.2
Urban					
Alone	8.1	3.5	6.2	4.0	4.3
With Spouses only	15.7	11.2	15.1	6.3	10.4
With Spouse & Others	38.1	42.8	37.2	46.8	46.8
With Children	31.2	33.4	35.8	37.8	32.2
With other relations	7.0	8.2	4.8	4.4	4.9
TOTAL					
Alone	10.9	3.0	8.5	5.3	5.2
With Spouses only	18.9	9.3	20.9	9.2	12.0
With Spouse & Others	36.7	45.5	32.4	45.4	44.8
With Children	26.9	35.6	32.4	34.5	32.1
With other relations	6.6	5.7	4.8	5.0	4.4

Source: NSS 60th round, Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004

Information on living arrangement of the elderly in the above table (11) reveals that about 57 per cent of the aged were living with their spouses (12 percent with spouses and 45 percent with spouse & others) and another 32 per cent were living without their spouses but with their children, while about 4 to 5 per cent were living with other relations and non-relations. Nevertheless, only 4 to 5 per cent were still living alone. It is observed from the table that the proportion of living alone was as high as 11 percent in TN and lowest in Kerala (3.0 percent). With respect to R-U difference again TN registered a significant r-u difference than the rest of the states which did not show much r-u differences.

An interesting gender-differential is observed in the living arrangement among the elderly and the pattern is similar in both rural and urban areas among all the southern states. In terms of proportions, more males than females lived with their spouses. On the other hand, compared to the males, proportionately more females lived either alone or with their surviving children or lived with other relations and non-relations.

TABLE No. 12 PERCENTAGE DISTRIBUTION OF ELDERLY PERSONS BY TYPE OF LIVING ARRANGEMENT IN SOUTHERN STATES, 2004

Type of living arrangement	TN	Kerala	AP	Karnataka	INDIA
Rural Male					
Alone	5.2	1.3	3.7	2.1	2.8
With Spouses only	30.2	12.7	32.4	13.8	16.2
With Spouse & Others	51.6	69.8	47.9	68.5	59.7
With Children	10.4	13.7	13.8	12.9	16.8
With other relations	2.7	2.3	1.2	2.6	2.7
Rural Female					
Alone	19.4	4.2	14.4	9.7	8.0
With Spouses only	11.0	5.6	13.4	6.5	8.7
With Spouse & Others	20.4	28.1	15.1	19.5	28.4
With Children	39.1	53.9	47.8	55.2	47.5
With other relations	10.0	6.7	8.2	8.1	5.6
Urban Male					
Alone	3.5	0.7	2.7	0.8	2.1
With Spouses only	22.1	16.8	21.5	9.6	13.3
With Spouse & Others	58.7	69.5	57.9	72.9	64.9
With Children	12.1	9.3	15.0	14.4	15.4
With other relations	3.6	3.6	2.5	1.6	2.9
Urban Female					
Alone	12.0	5.9	9.1	7.2	6.5
With Spouses only	9.9	6.4	9.5	3.1	7.5
With Spouse & Others	19.9	20.1	19.4	20.9	29.4
With Children	48.0	53.9	53.7	61.2	48.2
With other relations	10.0	12.1	6.7	7.1	6.7

The result indicates probably the impact of the higher incidence of widowhood among the elderly females than among the elderly males. The incidence of widowhood was higher among women because they live longer, and because in our society, men generally marry women younger than themselves. In TN (10.9 percent) and AP (8.5 percent) the proportion of elderly living alone was comparatively higher ; it indicates the rapid changes in the family system reducing the availability of kin support. It can be concluded that with the modernization of the society, older values are being replaced by individualism.

It is obvious that under the impact of modernization, decline in family size, changing pattern of family structure, and siblings moving from base family to distance place, the immediate family support for the elderly may further weaken.

CONCLUSION: *The Indian aged population is currently the second largest in the world. At the turn of the 20th century, Indian elderlywere making up about 7.7 per cent of* the total population and is expected to be around 12 per cent by 2026. The share of people aged 60 years and above in the total population was highest in Kerala (10.5 percent), followed by TN (8.8 percent). Invariably in all the Southern states the elderly females were more than the male elderly population. The rural areas have more number of elderly populations than urban areas. Aged females were out numbered both in rural and urban areas in all parts of south India. It indicates the higher expectancy of life for females.

In India, about 65 percent of the aged population depended on others – partially or fully – for their livelihood. This proportion was little higher

for rural elderly population (66 percent) and slightly lesser for urban elderly people (63 percent). However a wide variation was recorded between the urban female elderly fully dependent populations among the southern states; it ranges from 79 percent (Karnataka) to 64 percent (Kerala). In south India more than 95 percent of the elderly people were supported by their own spouse, children and grand children, irrespective of their place of residence and sex. It shows the strength of Indian custom of respecting and taking care of the elderly people. An interesting gender-differential is observed in the living arrangement among the elderly and the pattern is similar in both rural and urban areas. In terms of proportions, more males than females lived with their spouses. On the other hand, compared to the males, proportionately more females lived either alone or with their surviving children or lived with other relations and non-relations.

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VIEWS ON AGEING AND DYING OF ELDERLY PERSONS OF DIFFERING SOCIOECONOMIC STATUS

Paromita Ghosh*
Anindita Dey**

ABSTRACT

The aim of the study was to assess and compare the opinions of elderly persons of different socioeconomic status pertaining to aging and dying. Stratified random samples – one of 40 elderly persons possessing Above Poverty Line Ration Cards and another of 40 aged persons holding Below Poverty Line Ration Cards were selected. Both the samples included Bengalee Hindu senior citizens of both genders in the age range 60 through 80 years residing in Kolkata. A questionnaire prepared by the investigators and standardized Socio-Economic Status Scale (Singh et al., 2006) were administered to the respondents. The questionnaire elicited the background information of the participants and their views on aging and dying. The Socio-Economic Status Scale was primarily administered to confirm the socioeconomic status of the respondents. It was also utilized to identify the Above Poverty Line Ration Card holders of only the middle socioeconomic status for inclusion in the sample. This was done to control heterogeneity. Data analysis revealed that the elderly persons of differing socioeconomic status have substantially different views on aging and dying.

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*Reader, Department of Home Science, Calcutta University, Kolkata – 700027.

** Lecturer (Contractual), Department of Human Development, Acharya Prafulla Chandra College, New Barrackpore.

INTRODUCTION

Socioeconomic status is a sociological term used to describe the relative standing of individuals in the society based on variations in wealth, power, background and prestige of individuals. The socioeconomic status of a person can be determined on the basis of his or her education, occupation as well as income (Kuppuswamy, 1962; 1984; Woolfolk, 1990). Researches have reported that the socioeconomic status of aged persons have some bearing on their attitudes towards aging and dying. This is partly because the problems faced by the elderly belonging to different socioeconomic status are different. The underprivileged elderly face more basic problems than those of the middle and high socioeconomic status. Surveys (e.g. Nath, 1997) conducted on samples of elderly persons of Bangladesh revealed that the aged rural poor suffer mainly from financial hardship, malnutrition and various chronic diseases. As a result they are mostly fatalistic and accept the so-called misfortunes. But the rich elderly inhabitants of rural areas are much better off. They enjoy economic security and social respect. They do not suffer from loneliness as they are parts of the close-knit rural milieu. The urban poor and aged individuals reported economic, health and sanitation problems. Whereas, psychological problems including loneliness troubled the affluent urban elderly of Bangladesh as their family members had busy lifestyles (Nath, 1997). Even the health problems of the elderly differ by socioeconomic status. Kumar et al.(2009) found the middle class aged persons to be suffering more from Acute Myocardial Infarction than persons of lower socioeconomic status because of physical inactivity, perceived stress and higher ambition. In an investigation (Reddy, 1997) on a sample of rural older persons of Andhra Pradesh, it was found out that individuals of lower economic status were less

satisfied with their health condition than those of the middle class. Persons with higher education had more positive attitudes towards their health. The elderly men reported more favourable attitudes towards their health than the women. Reddy (1997) opined that locus of control mediates the relation between socioeconomic status and attitude towards own health. Persons of lower socioeconomic status have less control over their health condition because of poverty, ignorance and lack of empowerment. That is why they tend to have negative attitudes towards health.

Researchers (e.g., Nair, 1994; Manna and Chakraborty, 1994) identify economic problem as a major source of worry among the aged poor. Mukherjee(1994)reasons that loss of income in old age hits the poor really hard. Most of the health problems of the underprivileged elderly stem from poverty and inadequate sanitation. Proper treatment of these problems require lots of expenditure which the poor can not afford. So the problems persist or aggravate. Nandal et al.(1987) reported that in poorer households each member is expected to make financial contributions. Since the elderly can not earn they are considered as burdens. From Pati and Jena's(1989) findings it appears that older persons with adequate financial resources may choose to live apart from the families of their married offspring to avoid conflicts but the poorer elderly can not afford to do so. So financial problems may adversely affect the attitudes towards aging and dying of the aged poor.

The results of a study on a large sample of elderly citizens of the United States of America (Mookherjee, 1997) revealed that most of the respondents who were married, financially above average and completed more than high school education stated that they were very happy. Nature of attitude towards aging influences the desired life

expectancy. Mirowsky and Ross (2000) found the desired life expectancy was longer for healthier respondents of higher socioeconomic status for a sample of Americans. Chakravarty et al. (1997) surveyed 119 Bengali elderly widows and found the majority to have thoughts about death. The major reasons for such thoughts are reported to be physical ailments, frustration, loneliness and economic problems. Similarly, Cicirelli (2002) also found evidence of fear of death among aged in the U.S.A. In an earlier study Cicirelli (1997) found that having better socioeconomic resources is related to a determination to maintain control over the circumstances of one's own death. Chan and Yau (2010) reported the process of death preparation among the affluent Chinese senior citizens of Singapore. These people readily talked about issues related to their own death. It was reported that persons having less financial assets and strong beliefs in filial piety do not find it necessary to prepare for death. Cicirelli (2002) found that fear of death could be mitigated by religiosity, social support and less externality. The effect of self esteem was mediated by externality. In this context socioeconomic and health status also played their roles. As for the most desirable place to die, studies in diverse milieus e.g. India (Vijayan, 2005) and Israel (Iecovich et al., 2009) found own homes to be preferred by the majority of the aged. The presence of the near and dear ones at the time of death was also desired (Jindal, 2005).

METHODOLOGY

OBJECTIVES:

To find out and compare the responses of the elderly of differing socioeconomic status regarding

i) who are the persons with whom the aged can stay most peacefully;

ii) the chief problem perceived by the elderly;

iii) the extent of satisfaction with the current life situation;

iv) the attitudes towards aging;

v) the existence of fear of death;

vi) the best time to die in old age as indicated by the elderly;

vii) the best stage of life to die;

viii) the best strategies to overcome fear of death;

ix) preferred kind of death indicated by the aged persons;

x) the most comfortable place to die in old age;

xi) the presence of persons most desired by the elderly at the time of death.

SAMPLE:

Stratified random samples of Bengali Hindu elderly persons – one of 40 aged persons holding Above Poverty Line Ration Cards and another of 40 aged persons possessing Below Poverty Line Ration Cards were selected. Both the samples comprised 20 elderly persons (10 male and 10 female) each belonging to the two age – based strata:- 60 through 70 years and 70 through 80 years. Senior citizens irrespective of their marital statuses were included in the samples. The sampled elderly persons who were the holders of Above Poverty Line Ration Cards were actually of middle socioeconomic status as ascertained by administering a socioeconomic status scale. The aged persons possessing Above Poverty Line Ration Cards but of lower

and higher socioeconomic status were excluded from the sample to ensure homogeneity. None of the senior citizens included in either of the samples were apparently terminally ill. They were selected from different zones of Kolkata city – North, South, East, West and Central.

TOOLS USED:

i) A twenty one - item questionnaire prepared by the investigators to gather the background information of the respondents and to assess their opinions regarding aging and dying was administered. The background information included the name, age, gender, education, previous occupation, marital status and nature of accommodation of the respondents. The items eliciting the opinions regarding aging and dying pertained to the problems perceived by the elderly, their extent of satisfaction with the current life situation, attitudes towards aging, fear of death, strategies to overcome the fear of death, preferred kind of death etc. Most of the items in the questionnaire were closed - ended.

ii) A Standardized Socio – Economic Status Scale by Singh et al.(2006) was administered to ascertain the socioeconomic status of the respondents. It was specially used to identify the Above Poverty Line Ration Card holders of middle socioeconomic status for inclusion in the sample. The scale consists of 25 items. It has adequate reliability, validity and norms.

The investigators visited the homes of the participants to collect data by administering the tools already mentioned. Given the advanced age of the respondents, the tools were administered using the interview technique.

RESULTS AND DISCUSSION

Table I : Persons with whom the aged can stay most peacefully

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Spouse	0 (0%)	1 (2.5%)
Spouse and children	34 (85%)	38 (95%)
Brothers/Sisters	2 (5%)	0 (0%)
Alone	4 (10%)	1 (2.5%)

Table I shows that overwhelming majority of the elderly in both the samples feel they can stay most peacefully with their life partners and the offspring. This result reflects a desire to avoid loneliness – a problem of old age which figure in the findings of Nath (1997) and Chakravarty et al.(1997).

Table II : Most important problem perceived by the elderly

Major Problem	Above poverty line (N = 40)	Below poverty line (N = 40)
Health - related	24 (60%)	14 (35%)
Financial	4 (10%)	12 (30%)
Lack of social status	0 (0%)	6 (15%)
Strained relationship	10 (25%)	8 (20%)
Psychological	2 (5%)	0 (0%)

Table II reveals that though the perceived problems are not entirely mutually exclusive yet these have been categorized for the sake of convenience. A substantial proportion of the financially better off elderly have been found to be plagued by perceived health problems. This is in agreement with the results of Kumar et al.(2009). Physical inactivity and perceived stress (Kumar et al.,2009) may have important roles to play in this respect. From the results reported in Table II it seems that large numbers of the poorer respondents have reported the health problems and financial difficulties as most bothersome. This is in consonance with the findings of Nandal et al.(1987), Pati and Jena(1989), Nair(1994), Manna and Chakraborty(1994), Nath (1997) and Reddy(1997). Mukherjee(1994) and Reddy(1997) have unraveled the association between economic and health problems of the elderly.

Table III : Extent of satisfaction with current life situation

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Very dissatisfied	0 (0%)	11 (27.50%)
Dissatisfied	2 (5%)	23 (57.5%)
Neutral	12 (30%)	5 (12.5%)
Satisfied	24 (60%)	1 (2.5%)
Very satisfied	2 (5%)	0 (0%)

Table III shows a clear difference by socioeconomic status in the extent of satisfaction experienced by the elderly. Most of the financially better off aged persons have reported satisfaction with the current life situation. This is in line with the findings of Mookherjee(1997). But the majority of the underprivileged respondents have expressed dissatisfaction with their life situation. This is expected given that most of their basic needs are unfulfilled. This piece of result agrees with those of Nandal et al.(1987), Pati and Jena(1989), Nair(1994), Mukherjee(1994), Manna and Chakraborty(1994) and Reddy(1997).

Table IV : Attitudes towards aging as a process

Attitudes	Above poverty line (N = 40)	Below poverty line (N = 40)
Very unfavourable	2 (5%)	0 (0%)
Unfavourable	24 (60%)	28 (70%)
Neutral	10 (25%)	12 (30%)
Favourable	4 (10%)	0 (0%)
Very favourable	0 (0%)	0 (0%)

It is evident from the results reported in Table IV that the elderly of differing socioeconomic status are alike in mostly harbouring unfavourable attitudes towards aging. This is because aging is synonymous with failing health. Loss of social status and loneliness are the problems associated with aging. Among the poorer elderly, financial problems make matters worse. This is in tandem with Mirowsky and Ross's(2000) finding that desired life expectancy (which is influenced by attitudes towards aging) is dependent on health and socioeconomic status of aged persons.

Table V : Fear of death among the elderly

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Fear of death present	1 (2.5%)	40 (100%)
Fear of death absent	39 (97.5%)	0 (0%)

From observation of Table V it seems that fear of death among the elderly differs sharply by socioeconomic status. The respondents of lower socioeconomic status, without exception, appear to be fearful of impending death. This agrees with the outcomes of the researches by Cicirelli (1997), Cicirelli (2002) and Chan and Yau (2010). Persons who are less empowered (e.g. the underprivileged) lack control over the circumstances of their own death, as pointed out by Cicirelli (1997), so they are afraid of death. The relatively affluent elders prepare themselves for death (Chan and Yau, 2010) so they seem to overcome the fear of death.

Table VI : Best time to die in old age

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
60 -70 years	36 (90%)	11 (27.5%)
70 - 80 years	4 (10%)	29 (72.5%)
80 - 90 years	0 (0%)	0 (0%)
90 years and above	0 (0%)	0 (0%)

It is evident from Table VI that the overwhelming majority of the socioeconomically better – off participants opined that it was best to die between 60 and 70 years of age but most of the poorer respondents

indicated that between 70 and 80 years was their preference. This does not agree with Mirowsky and Ross's (2000) research outcome. It could be that lives of hardship have made the underprivileged Indian elderly so resilient that they are willing to deal with the problems of poverty and ageing for a longer period. Nath (1997) had in fact mentioned that the aged poor in Bangladesh accept their severe difficulties simply as "misfortunes". This kind of attitude may also prevail in the present sample. However, their relatively well-off counterparts who are used to softer lives think it is best to die earlier possibly to avoid the onset of serious age – related problems.

Table VII : Best stage of life to die

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Before spouses death	10 (25%)	21 (52.5%)
Before becoming very ill and infirm	24 (60%)	19 (47.5%)
After all duties are complete	6 (15%)	0 (0%)

Table VII reveals that the majority in the sample of underprivileged elderly wanted to die before losing their life partners perhaps to avoid the consequent frustration, loneliness and severe economic problems as identified by Chakravarty et al. (1997). Most of the financially better off aged persons, however, longed to die before becoming very ill and immobile. Even a large proportion of the poorer elderly have similar longings. This finding is in tandem with that of Mirowsky and Ross (2000) who reported the association between desired life expectancy and health status of the elders.

Table VIII : Best way the elderly can overcome the fear of death

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Spending more time with relatives/ friends	2 (5%)	6 (15%)
Performing religious rituals	7 (17.5%)	17 (42.5%)
Accepting death as inevitable	14 (35%)	0 (0%)
Doing social service	17 (42.5%)	0 (0%)
Household work	0 (0%)	17 (42.5%)

Table VIII shows that the sample of the relatively well-off aged persons mostly prefer to mitigate the fear of death by involving themselves in social service. A substantial proportion of them deal with death anxiety by accepting death as inevitable. These reflect their higher socioeconomic status. For their poorer counterparts the popular strategies are seeking refuge in religious rituals and in doing household chores. Their lower socioeconomic status does not permit them the luxury of adopting sophisticated measures like social service. The fear management strategies mentioned by the sampled elderly mostly agree with those suggested by Cicirelli (2002).

Table IX : Preferred kind of death for the elderly

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
After long illness	0 (0%)	0 (0%)
After brief illness	0 (0%)	21 (52.5%)
Peacefully in sleep	40 (100%)	19 (47.5%)

Table IX reveals that all the socioeconomically better off elderly desire peaceful ends. It is plausible that they feel better positioned to control the circumstances of their death. This finding is congruent with that of Cicirelli (1997).

Table X : Most comfortable place for the aged person to die

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Own house/flat	40 (100%)	40 (100%)
Rented accomodation	0 (0%)	0 (0%)
Old age home	0 (0%)	0 (0%)
Hospital/ Nursing home	0 (0%)	0 (0%)

Table X shows that both the samples unequivocally endorsed own accommodations as the most suitable places for dying. This agrees with the results of Vijayan (2005) and Iecovich et al. (2009).

Table XI : Presence of persons most desired by the aged when dying

Responses	Above poverty line (N = 40)	Below poverty line (N = 40)
Children	1 (2.5%)	4 (10%)
Spouse and children	37 (92.5%)	34 (85%)
Other family members	0 (0%)	0 (0%)
Friends and relatives	2 (5%)	2 (5%)

Table XI bring to light the finding that overwhelming majorities of persons belonging to both the samples desire the presence of the next of kin at the time of demise. This perhaps makes them feel more comfortable and peaceful. It is in consonance with the result reported by Jindal (2005).

CONCLUSION

It is evident from the findings that the socioeconomic status of the aged persons substantially colors their views on aging and dying. So the government policies and programmes for the aged require being tailor – made for the different socioeconomic strata of the society. The strategies of geriatric counseling must also be customized to address the specific needs of the senior citizens of differing socioeconomic status.

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ROLE OF SUPPORTIVE PSYCHOTHERAPY IN THE MANAGEMENT OF MENTAL HEALTH OF ELDERLY WOMEN WITH OSTEOPOROSIS

Punam Rani Shukla*

ABSTRACT

Osteoporosis is a common health problem in old age. Osteoporosis is defined as a systemic skeletal disease characterised by low bone mass and micro-architectural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Osteoporotic fractures, particularly vertebral fractures, often cause disability, deformity and chronic pain. Pain and fear of falling inhibit physical activity which in turn affects social activities. Elderly women with established osteoporosis face fear, anxiety and depression. The mental health condition of elderly women deteriorates due to anxiety and anticipated fear of fracture. In modern culture, women's self-esteem is often based on their appearance. Osteoporosis deforms women by causing kyphosis and changing posture and carriage. Hence, for resolving of anxiety and depression in elderly women with osteoporosis, supportive psychotherapy is essential. Supportive psychotherapy maximises patient's strength and restores his psychological equilibrium. It also enables the individual to negotiate "psychosocial transitions" particular life events and challenges which produce psychological reactions, symptoms and disorders.

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*Project coordinator, Dept. of Kayachikitsa, I.M.S., B.H.U., Varanasi

INTRODUCTION

Osteoporosis is the most common skeletal disease associated with ageing. It has become a major public health problem due to significant increase in morbidity, mortality and enormous financial burden. In women, osteoporosis progresses fast after menopause. It is estimated that about 35 % of the post menopausal women in India are osteoporotic. Osteoporosis is defined as reduction in bone mass leading to an increased susceptibility to fracture with minimum trauma (Editorial, 1996). According to World Health Organization 1994, osteoporosis is characterised by low bone mass and micro-architectural deterioration of bone tissue, leading to enhanced bone fragility and a consequent increase in fracture risk (WHO, 1994). In osteoporosis, the amount of bone material is so low that the bones become brittle and porous causing them to crack and break with little pressure. Women lose around 1% of their bone mineral density each year in the years beyond their menopause and hence over time are likely to develop osteoporosis in old age. Osteoporosis is a silent disease without any symptoms in most patients. It is also referred to as a "silent thief" because bone loss occurs without symptoms. Individuals may not know they have osteoporosis until their bones are so weak that a minimal trauma like a hug, bump or fall causes vertebra to collapse or a fracture to occur (Scientific Advisory Board, Osteoporosis Society of Canada, 1996).

Clinical features of osteoporosis are acute pain and chronic pain followed by fractures. Osteoporosis-related fractures commonly involve the proximal femur (hip), vertebral body, and distal forearm (Colles fracture). In women, the risk factors of osteoporosis are genetic, calcium and vitamin D deficiency, lack of exercise, compounding effect of other diseases (e.g. kidney diseases), alcohol, smoking and hormone (estrogen) insufficiency (Harrison's principle of Internal

Medicine,1994). Some researches have shown that the risk of developing osteoporosis varies by race and ethnicity, although all groups can develop this disease. White and Asian women develop osteoporosis more often than African-American women because of differences in bone mass and density. One of every five African-American women, however, is at risk of developing osteoporosis. The average calcium intake among Asian women is about half that of Western population groups. Although Asian women have lower hip fracture rates than White women, the prevalence of vertebral fractures is similar (Osteoporosis and Related Bone Diseases National Resource Center, 1995).

Hence for elderly women with osteoporosis, effective diagnosis and management is essential. The primary goal of the management of osteoporosis is to prevent osteoporosis in the first place and prevent fracture if osteoporosis has already set in by treating it. Osteoporosis is a chronic condition that lends itself well to a self-management approach to care. Most elderly women with osteoporosis or osteopenia require medication. Medications are useful in promotion of bone health, in prevention of further bone loss, in prevention of pain, in prevention of fractures and loss of function. In conjunction with medical management, individuals with osteoporosis or osteopenia should be encouraged to pursue lifestyle modifications. Appropriate levels of calcium and Vitamin D, regular weight-bearing exercise, and exercise programs that increase strength, coordination, balance and flexibility have been shown to slow accelerated post-menopausal bone loss (Dalsky, Stocke, Ehsani, et al., 1998; Steinburg ,1987).

The initial diagnosis of osteoporosis often leads women to experience considerable anxiety. This anxiety results from the desire to prevent future fractures. Many women believe that the only way to accomplish

this is to limit or eliminate activity and "protect" them from harm. Anxiety leads to depression when a fracture occurs despite all protective efforts. Besides the symptoms of depression, women have chronic pain, physical limitations, loss of social roles, and diminished self-esteem (Gold, Drezner, 1995).

Established osteoporosis in elderly women reduces the quality of life. Very few regain their previous level of activity and independence. The reluctant loss of confidence, social isolation and depression impact on elderly women's ability to manage their condition and in particular their pain. Majority of those who survive are disabled and only 25% will resume normal activities.

An osteoporotic fracture results in increased difficulty in the activities of daily life. Functional limitations include difficulty in stair climbing, reaching, bending, lifting, walking, getting in and out of a car, cooking, shopping, putting on shoes and doing housework. The two most difficult tasks are reported to be cooking and shopping (Jaglal , 1998). Thus fractures have a profound impact on quality of life. Osteoporotic fractures, particularly vertebral fractures, often cause disability, deformity and chronic pain. Pain, and fear of falling, inhibits physical activity and compromises a normal lifestyle. Social activities are restricted, and important social roles such as parent, grandparent and worker can be affected by changes in stature, back strength and flexibility. The fear of residual disability, and the increased risk of refracturing, can seriously jeopardize the quality of life for individuals and their families. Pain, permanent deformity and subsequent reduced physical activity send the individual on a downward spiral leading to accelerated bone loss and risk of subsequent fractures (Gold, 2000).

Increased stress and reduced self-esteem can be long term psychological outcomes of fractures and chronic pain. Self-esteem,

characteristically built on occupational success and physical appearance, decreases as women with fractures lose height, develop kyphosis, and become incapable of completing such tasks as lifting, bending and stooping. In modern culture, women's self-esteem is often based on their appearance. Women who could once purchase clothing "off the rack" no longer fit into the standard shapes of dresses or blouses. These changes in appearance combined with the feelings of worthlessness that result from functional and physical limitations can lead to depressive symptoms for many women with osteoporosis.

Many elderly women who have never had a fracture indicate a strong fear of one, perhaps from having seen its effect on friends and relatives, and this anxiety is greater than the fear of breast cancer or stroke. Loss of independence following a bad hip fracture is seen by many as unacceptable, and, if given a choice, a majority of elderly women would choose death over admission to a nursing home (Salkeld, Cameron & Cumming RG, et al.2000). Thus osteoporotic elderly women face fear, anxiety and depression which in turn give impaired mental health. Psychological support is essential for those who are struggling to deal with their pain and are distressed by their new diagnosis of osteoporosis, alerted body image, and loss of independence. It has been found in practice those elderly women who receive supportive psychotherapy or other forms of psychological treatment, the anxiety can resolve. For this expertise of psychologist or psychiatrist is required.

In supportive psychotherapy, the therapist tries to change the patient's action, feelings and thinking. According to Oxford English Dictionary, support means to strengthen the position of a person by one's assistance, countenance or adherence. In supportive psychotherapy the therapist gives a form of psychological aid which enables him to

survive. The supportive psychotherapy can help the elderly patients through reassurance, explanation, guidance, suggestion, education and via emotional catharsis (Bloch, 1979; Holmes, 1991).

Though Osteoporosis is related to age so it is important that general physician should learn to manage its psychological symptoms. Though in general medical settings facilities for assessment and treatment of the older patients are often poor, but the physicians must pay adequate attention to psychological symptoms and should try to manage it with the help of psychologist or psychiatrist. In hospitals, for pain and mental health management of osteoporotic elderly women, multidisciplinary team approach is required.

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ORAL HEALTH IMPACT ON QUALITY OF LIFE OF GERIATRIC POPULATION

Sunali Khanna *
Rahul Khanna (Intern) **

ABSTRACT

We are witnessing a sharp increase in the geriatric population as India is undergoing demographic transition. Therefore, the need to emphasize the medical and dental problems faced by the geriatric population and to correlate it to their quality of life, is the need of the hour. Oral health affects individuals physically, psychologically and in turn influences their social well-being. Mastication, speech, appearance and quality of life, of the geriatric population affect their systemic health. Strategies for improvement in their quality of life need to be explored. Oral diseases are the most common chronic diseases that are a public health concern because of their prevalence, impact on individuals, society and expense of their treatment. The impact of oral health on quality of life is an amalgamation of disease, risk factors, modifying factors, level of awareness, prevention and treatment. There is a need to abolish compartmentalization involved in strategies viewing the oral cavity as a separate entity. Formulating oral health policies by assessing oral health needs can greatly enhance both general and oral health. It is also imperative to incorporate oral health into general health promotion.

Key words: geriatric population, oral health, systemic health, quality of life

*Asst. Professor, Nair Hospital Dental College, Mumbai – 400 008
** Rahul Khanna (Intern)

In India the average life expectancy at birth was 32 years in1947, 62 years in 1994 and will be an estimated 75 years in 2015 [1]. As the life expectancy increases, the size of the geriatric population also increases. Presently there are an estimated 8.14% people in the geriatric age group (>60) [2]. Out of these the number of edentulous adults is approximately 19% [3].These numbers clearly indicate the increasing need of having an efficient, effective and wide spread health care system for the elderly in order to improve their quality of life. Both general and oral health are instrumental in determining the quality of life of these people. As these two are interdependent, a holistic and multi- disciplinary approach is the need of the hour.

Age Related Changes of Oral Tissues

There is not much data available on the effects of aging on the oral tissues. In addition, it is very difficult to clearly demarcate the normal physiological aging procedures from the pathological ones. One of the major age related change of the elderly is the decreased salivary flow due to hypofunction of the salivary glands. This has a cascading effect on all oral tissues. Firstly, saliva contains multiple antimicrobial factors, buffering systems, supersaturated calcium phosphates, large lubricant molecules, and digestive enzymes. This makes saliva the primary oral defence mechanism. Decreased salivary flow causes a manifold increase in the incidence of dental caries. Without adequate salivary function, quality of life also is likely to be compromised since salivary moisture offers lubrication for taste, speech, chewing, and swallowing. In addition, hyposalivation also predisposes the oral cavity to candida infections.

With increasing age, the condition of the periodontium worsens thereby leading to gingival recession and bone loss [4]. Gingival recession causes root exposure thereby increasing the incidence of root caries. Progressive bone loss finally leads to mobility and loss of teeth. Another age related change is the abrasion, attrition, and erosion of teeth [5]. There is secondary dentin, pulp calcification and sclerosis

of the root canals [6], [7]. In addition, the various debilitating disorders of the elderly like diabetes, hypertension, cognitive dysfunction, etc. have a direct bearing on the oral cavity. It is well established that in diabetics the rate of Residual Ridge Resorption has increased [8]. This necessitates the frequent relining and rebasing of the dentures. Likewise, in patients with cognitive function impairment the maintenance of oral hygiene is difficult.

Oral health conditions can become a risk factor for systemic diseases for e.g. periodontitis is regarded as a risk factor for cardiovascular diseases [09], [10]. Infective endocarditis is often a fatal systemic disease that is associated with dental disease and treatment. Bacterial pneumonia results from aspiration of oropharyngeal flora into the lower respiratory tract, failure of host defence mechanisms to eliminate them, multiplication of the microorganisms, and subsequent tissue destruction. Pathogens first colonize the surfaces of the oral cavity or pharyngeal mucosa before aspiration [11], [12].

The incidence of cancerous lesions in the elderly is also on the rise. Oral precancer (oral leukoplakia & oral submucous fibrosis) and cancer are complex multi-factorial diseases arising from the interplay between the genetic components and the environmental determinants [13]. Almost 90% of the oral cancers are Squamous Cell Carcinomas. The most common sites of occurrence are buccal mucosa, tongue and labial mucosa (lower lip). Mutation of the p53 gene characteristic of the DNA damage induced by ultra violet light is seldom implicated. In addition, climate change induced dietary transition; impacts on food chain ecosystem have increased the vulnerability of population at risk. Oral cancer screening, early detection and proactive intervention would lead to improvement of survivorship and quality of life of population at risk [14].

Geriatric Dental Care

It is observed that elderly people with missing anterior teeth are less confident their looks than those with missing posterior teeth. When oral health is over looked, the overall status of health and the quality of life are compromised. The oral cavity is related to the ability to chew and swallow so in a way it contributes to health related quality of life at a basic biological level. In addition, poor oral hygiene leads to halitosis or bad breath. This reduces the self-confidence and self-satisfaction of the elderly. They avoid socializing due to these problems thereby affecting their quality of life. Loss of teeth, in addition to affecting the esthetics and the ability to chew, also causes speech impairment to some extent. This is particularly true with the pronunciation of labiodental sounds like 'f' and 'v' linguodental sounds like 'th' and bilabial sounds like 'b','p'and 'm' [15]

Like mentioned before there is a strong correlation between oral and systemic diseases, several
Geriatric patients are on multiple drugs to treat the various systemic disorders related to aging. One profound side effect of multi-pharmacy is xerostomia (dryness of mouth).This is particularly true in case of drugs used in the treatment of anxiety (diazepam, lorazepam), anti-convulsants like carbamazepine, NSAIDs like ibuprofen etc. [16]. Xerostomia compromises the quality of life since salivary moisture offers lubrication for taste, speech, chewing and swallowing. Certain medications prescribed for the elderly (like phenytoin, sodium calcium channel blockers, etc.) can cause gingival enlargement or induce lichenoid reactions (like ACE inhibitors).Although benign and asymptomatic, a very small number of these cases develop into malignancy [17]. .

Several indices have been formulated to study the relationship between oral health and quality of life. Like Oral Health Related Quality of Life index (OHQoL) and more specifically the Geriatric Oral Health

Assessment Index (GOHAI) [18], [19], [20]. While the GOHAI is designed to estimate the degree of psychosocial impacts associated with oral diseases and is being tested as an outcome measure to evaluate the effectiveness of dental treatment, the OHQoL measure is a brief global assessment of the impact of oral conditions on individuals' functioning and well being. According to GOHAI, 53 % of the patients experienced functional and psychological problems [21].

We can categorize the aging population into three broad functional groups:

- functionally independent older adults
- frail older adults
- functionally dependent older adults [22]

In our country, the geriatric dental care system is still not efficient enough to take care of the large number of geriatric population. The elimination of acute pain and infection should be the prime focus of the geriatric dental care system. Likewise, special oral hygiene measures like tooth brush and dental floss with larger handles should be provided to the elderly with compromised manual dexterity due to conditions like arthritis etc. A six monthly dental visit for a regular check-up should be made mandatory for the elderly. In case of edentulous patients wearing dentures regular follow-ups must be done by the dental practitioner to keep a check of any deleterious effects of the dentures on the oral mucosa.

A detailed medical history of these patients should be elicited before initiating any dental treatment. If required a physician's consent must be obtained such as in case of uncontrolled diabetes or hypertensive patients who are not under any medication. Required precautions must be taken such as pre-operative antibiotic prophylaxis for diabetic patients prior to any surgical dental procedure. Preferably shorter clinical appointments should be given to the elderly. A considerate,

thoughtful and affectionate approach by the dental practitioner towards our elderly is the need of the hour.

As a large population of the geriatric patients are denture wearers maintenance of oral hygiene maintenance becomes very important for these patients. Brushing twice daily is important to maintain the health of the remaining teeth in case of partial denture patients. The dentures should be removed every night before going to bed and cleaned using a denture cleansing agent. Ill fitting dentures should be immediately brought to the notice of the dentist. Treatment for any chronic non- healing ulceration or inflammation of more than three weeks duration should be investigated. In case of fixed partial dentures flossing in the area of prosthesis is very important to maintain the integrity of the surrounding oral structures.Every night after removing the dentures the edentulous ridge should be massaged with finger to maintain the blood supply to the ridge.The geriatric patient should get professional cleaning of teeth (scaling) done at every six months interval as most of these patients are suffering from chronic periodontitis.Like mentioned before the strong correlation between oral and systemic diseases should not be overlooked.Diabetic and hypertensive patients must get their physician's consent for any dental surgical appointment to avoid post-operative complications.Patients on medications for any systemic ailments(like cardiac disorders etc) should inform their dental surgeons before hand to avoid any kind of drug interactions.Any kind of an abnormal growth or discoloration etc in the oral cavity should be immediately brought to the notice of the dental surgeons' as these can have precancerous/cancerous potential.By keeping abreast of the complex issues affecting geriatric dental care and offering treatment that takes into account the physical,mental and social status of older adults the dental practitioners can enhance their older patients' health,thus helping them to enjoy healthier,longer lives with improved comfort and quality of life.

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