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Leisure time activities: A boost for elderly health

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INTRODUCTION

Abstract

Forty Five rural and urban male and female elderly under the age group of 60-74, 75-84 and 85 and above were randomly selected from Dharwad Taluka. Data was collected through exploratory and personal interview methods. Individually administered questionnaire consisted of personal information schedule to elicit auxiliary information of the subjects regarding demographic variables, Ageing scale was used to assess the health status and leisure time activities of elderly and socio-economic status scale was employed to assess the SES of the family. To find out the association between health status, leisure time activities and independent variables non-parametric test was employed. Correlation research design was employed to test the degree of relationship between health status and leisure time activities of rural and urban elderly. Results showed that 58.50 per cent of rural elderly belonged to lower middle SES and 47.40 per cent of the urban elderly belonged to upper middle SES. With respect to health problems, majority of the elderly had no health problems such as tremors (83.1%), asthma (79.4%), heart problem (79.1%), constipation (77.7%), headache (76.3%), heal pain (74.4%), skin itching (71.8%), poor hearing (67.4), reproductive problems (67.2%), acidity (64.8%), nerve problem (64.3%), uncontrollable bladder (52.4%), diabetes (46.3%), back pain (43%). Significant association was found between health status and gender of the rural elderly. Whereas non-significant association was found between health status and gender of the urban elderly. Majority of the rural and urban elderly under age group of 60-74 years old had good health status. Significant association was found between health status and age of the rural elderly. Whereas, it was no significant in case of urban elderly. Majority of the elderly reported of involving in leisure time activities regularly like Going out for walk (76.7%), Involving in religious activities (75.2%), Visiting friends (70.2%), Sleeping (63.3), watching TV (63%), Gardening (60.9), Listening to music (57.6), Caring for grand children (40.6), Reading (32.4), Participating in sports/games (20.6), Working part/full time (18.1) and Participating in community organization. health status was positively and significantly correlated with leisure time activities of the elderly (r=0.33). Indicating higher the engagement in the leisure time activities, better the health status of the elderly.

Ageing, the process of growing old regardless of

chronological age, is the last stage in life-span. Divisions can be sometimes made between the young old (65-74), the middle old (75-84) and the oldest old (85+). In 1950,

there were about 200 million persons aged 60 and above in the world and this figure now stands at 550 million and is expected to reach 1 billion mark by the year 2020.

"Aging can be defined as a series of time related processes occurring in the adult individual that ultimately bring life to close. It is the most complex phenotype currently known and the only example of generalized biological dysfunction. Aging influences an organism's entire physiology, functioning at all levels and increased susceptibility to all major chronic diseases." (Vijg, 2007). Old age is called "dark" not because the light fails to shine but because people refuse to see it (Gowri, 2003). Health status of elderly in India is far from satisfaction. The changing life style of today is adversely affecting the lives of most of elders. Common age-related physical changes include hearing impairment, weakening vision, and the increasing probability of arthritis, hypertension, heart disease, diabetes, and osteoporosis. The proportion of older adults needing assistance with everyday activities increases with age (The American Psychological Association, 2014). However, a successful ageing must encompass more than the mere absence of disease and dysfunction (Blazer, 2006). Physical activity is an important part of healthy ageing (Peel et al., 2005). Physical inactivity is the fourth-leading cause of global mortality from non-communicable diseases (6 % of deaths annually) behind high blood pressure, smoking and high glucose levels (WHO, 2010). Leisure is an indispensable domain of life. It implies time to relax and play and also engaging in desired activities without any obligation or duty. A higher percentage of men than women reported being at least moderately active in their leisure time, particularly at younger (less than 34) and older (65 or older) ages. Studies have shown that elderly who actively involved in leisure obtain various benefits, depending on the type of the activities performed. These include a positive impact on the cognitive function, survival and longevity, quality of life and life satisfaction. It is also an important way for the elderly to remain and continue to take part in the society and have a positive effect on personal well-being.

Individuals can recover from stress and restore social and physical resources (Pressman *et al.*, 2009) through leisure activities. Paillard *et al.* (2009) examined five types of leisure activities in older adults mental, social, physical, productive, and recreational-to assess how participation affects health status. They found that mental activities (e.g., writing, reading) were not only the most popular type of leisure activities, but also enhanced wellbeing the most. Finally, in a recent review of literature on social and leisure activities and well-being in older adults, Adams *et al.* (2011) concluded that informal social activity (e.g., going to clubs) benefited well-being the most. Thus, the present study sought to examine the impact of leisure time activities on health status of rural and urban elderly.

MATERIAL AND METHODS

A descriptive study was conducted during 2013 -2015 in urban and rural areas of Dharwad city of Karnataka state. A randomized population of 540 elderly (270- from urban and 270-from rural) of both the gender, under the age group of 60-74, 75-84 and 85 and above were selected by snow ball technique. Data was collected through exploratory and interview research methods. Individually administered questionnaire consisted of personal information schedule to elicit auxiliary information of the subjects regarding demographic variables, Ageing scale developed by Badiger and Kamath (2008) was used to assess the health status, functional abilities and leisure time activities of elderly and Socioeconomic status scale (Aggarwal et al., 2005) was employed to assess the SES of the family. Elderly were personally contacted in their family and were briefed about the purpose of the study and then they were interviewed. They were asked to follow the instructions given in the questionnaire before filling information. The caregiver's opinion was also sought wherever possible to substantiate the responses given by the elderly regarding health and leisure time utilization. The duration of each interview was about 60-120 minutes. Each questionnaire has been given in English and Kannada languages to elicit clear answers. Some of the educated respondents filled the questionnaire by themselves whereas information from illiterate respondents was gathered through personal interview method by the researcher. To find out the association between health status, leisure time activities and independent variables non-parametric test was employed. Correlation research design was employed to test the degree of relationship between health status and leisure time activities of urban male and female elderly.

OBSERVATIONS AND ANALYSIS

Table 1 illustrates the percentage distribution of elderly by their health problems. Majority of the elderly

had no health problems such as tremors (83.1%), asthma (79.4%), heart problem (79.1%), constipation (77.7%), headache (76.3%), heal pain (74.4%), skin itching (71.8%), poor hearing (67.4), reproductive problems (67.2%), acidity (64.8%), nerve problem (64.3%), uncontrollable bladder (52.4%), diabetes (46.3%), back pain (43%). some of them had health problems 'to some extent' such as knee pain (57.8%), blood pressure (57.2%), poor vision (54.6%), back pain (52.4%), joint pain (49.6%), arthritis (42.8%), uncontrollable bladder (42.6%), diabetes (40.7%), reproductive problems (31.7%), acidity(30.4%), nerve problem (28.9%), skin itching (27.8%), heal pain (25.2%), poor hearing (24.4%), headache (22.6%), constipation (21.1%), heart problems (17%), asthma (15%) and tremors (13.1%). Few of the health problems were present to a greater extent in some of the elderly such as arthritis (51.1%), joint pain (38%), blood pressure (27.8%), knee pain (25.9%), diabetes (13%), poor vision (10%), poor hearing (8.1%), nerve problem (6.9%), asthma (5.6%), uncontrollable bladder (5.0%), acidity (4.8%), back pain (4.6%), heart problems (3.9%) and tremors (3.7%). The reason could be due to their improved living conditions, maintaining sanitation, hygiene, active involvement in physical work, balanced

diet and affordable medical facilities. Few of the health problems were present to a greater extent in some of the elderly. This may be due to elderly people's problems related to fulfilment of basic requirements such as social relations; personal care, nutrition and accommodation are added to old age health problems. These results are in favour of the findings of Mamatha and Lata (2014) who reported that majority of retired senior citizens had a good health status and very few of them reported severe health problems like diabetes (10.7%), blood pressure (8.9%), poor hearing and vision (5.4% and 6.2%), arthritis (5.4%)asthma (4.5%). Siva Raju and Anand (2000) reported that the high incidence of chronic diseases, inability to good nutrition, inadequate medical services and the absence of long term preventive health care measures for the elderly are some of the factors that have emerged as the causes for the poor health status of the elderly. Health surveys in Kerala showed that the incidence of chronic and degenerative disease is increasing very rapidly. Diabetes, hypertension, cardiovascular diseases, coronary heart diseases and cancer incidence has been progressively increasing in Kerala (Nayer, 2000). As reported by Singh (2004), heart diseases and its risk factors such as hypertension, hypercholesterolemia, diabetes and

| Table 1 : Percentage distribution of elderly | (n=540) | | | |
|--|-------------------|----------------|------------|--|
| Health complaints | To greater extent | To some extent | Not at all | |
| Treatin complaints | N (%) | N (%) | N (%) | |
| Heart problems | 21 (3.9) | 92 (17.0) | 427 (79.1) | |
| Diabetes | 70 (13.0) | 220 (40.7) | 250 (46.3) | |
| Arthritis | 276 (51.1) | 231 (42.8) | 33 (6.1) | |
| Tremors | 20 (3.7) | 71 (13.1) | 449 (83.1) | |
| Blood Pressure | 150 (27.8) | 309 (57.2) | 81 (15.0) | |
| Poor Vision | 54 (10.0) | 295 (54.6) | 191 (35.4) | |
| Poor Hearing | 44 (8.1) | 132 (24.4) | 364 (67.4) | |
| Asthma | 30 (5.6) | 81 (15.0) | 429 (79.4) | |
| Back pain | 25 (4.6) | 283 (52.4) | 232 (43.0) | |
| Knee pain | 140 (25.9) | 312 (57.8) | 88 (16.3) | |
| Joint pain | 205 (38.0) | 268 (49.6) | 67 (12.4) | |
| Nerve problem | 37 (6.9) | 156 (28.9) | 347 (64.3) | |
| Headache | 6 (1.1) | 122 (22.6) | 412 (76.3) | |
| Acidity | 26 (4.8) | 164 (30.4) | 350 (64.8) | |
| Constipation | 6 (1.1) | 114 (21.1) | 420 (77.7) | |
| Skin itching | 2 (0.4) | 150 (27.8) | 388 (71.8) | |
| Heal pain | 2 (0.4) | 136 (25.2) | 402 (74.4) | |
| Uncontrollable bladder | 27 (5.0) | 230 (42.6) | 283 (52.4) | |
| Reproductive problems | 6 (1.1) | 171 (31.7) | 363 (67.2) | |

Figures in the parenthesis indicates percentages

central obesity are of sufficient magnitude in the elderly population of India and formed major public health problems.

Table 2 depicts association between health status and gender. Among rural elderly majority of the male respondents (67.4%) had good health status followed by average (3.26%). Whereas majority of the rural female elderly (51.1%) found to have average health status, followed by good (48.9%). Among urban male and female elderly majority of them (73.3% and 72.6%) had good health status, followed by average (26.7% and 27.4%) respectively. Significant association was found between health status and gender of the rural elderly. Whereas it was non-significant in case of urban elderly. The health of the female elderly is generally affected to a large extent due to their constant struggle in handling both family and work among adverse living conditions, stringent resources and lack of access to affordable health care services. These results are supported by Puri and Khanna (1999) who revealed that the elderly suffered from several health problems in old age like impaired vision, hearing, and immobility, loss of memory and urinary incontinence, and hypertension. Study by Agarawal and Jhingan (2002) showed that stressful life events were significantly more among female as compared to male. Results of the study conducted by Nagaratnamma and Vimala (2002) showed significant difference in well-being and mental health between men and women. They also explained that factors contributing to the well-being of men were spouses support and financial stability whereas, occupation, stable emotional feeling and good family relations contributes for well-being of women. Larson *et al.* (2006) found that female spouses had negative impact on psychological well being than male spouses. They explained that female spouses had lower quality of life and well being than male spouses.

Table 3 represents association between health status and demographic variables of rural and urban elderly. Majority of the rural elderly under age group of 60-74 years old had good health status (65.8%), followed by average health status (34.2%). In case of 75-84 years age group, 55.7 per cent of the elderly had good health status, followed by average health status (44.3%). Among 85 and above age group 52.5 per cent elderly had average health status followed by good health status (47.5%). With respect to the urban elderly, in the age group 60-74 years, 75.4 per cent were having good health status followed by average (24.6%). In case of 75-84 years age group 70.4 per cent had good health status, followed by average (29.6%) and in the age group of 85 and above, 70.2 per cent found to have good health status and remaining 29.8 per cent had average health status. None of the rural and urban elderly belonging to age group 60-74 years, 75.84 years and 85 and above years had poor health status. Significant association was found between health status and age of the rural elderly. Whereas non-significant association was found between age and health status of urban elderly. This all shows that younger the individual better will be the perception of their health. Results are in line with the study carried out by Jylha and colleagues

| | | | | Health star | tus of elderly | | | |
|--------|------|--------------|-----------|----------------|----------------|--------------|------------|---------------------|
| Gender | | Rural (n=270 |) | χ ² | | Urban (n=270 |)) | χ ² |
| | Poor | Average | Good | value | Poor | Average | Good | value |
| Male | - | 44(32.6) | 91(67.4) | | - | 36(26.7) | 99(73.3) | |
| Female | - | 69(51.1) | 66(48.9) | 9.512** | - | 37(27.4) | 98(72.6) | 0.019 ^{NS} |
| Total | - | 113(41.9) | 157(58.1) | | - | 73(27.03) | 197(72.96) | |

NS =Non-significant ** indicates significance of value at P < 0.01

| | | | | Health statu | is of elderly | | | |
|---------------------------|---------------|------------|------------|--------------|----------------|-------------|------------|--------------|
| Age | Rural (n=270) | | 0) | χ2 | χ ² | Urban (n=27 | 70) | χ2 |
| | Poor | Average | Good | value | Poor | Average | Good | value |
| Young old (60-74) | - | 39(34.2) | 75(65.8) | | - | 35(24.6) | 107(75.4) | |
| Old (75-84) | - | 43(44.3) | 54(55.7) | 5.751* | - | 24(29.6) | 57(70.4) | 0.867^{NS} |
| Oldest old (85 and above) | - | 31(52.5) | 28(47.5) | 5.751* | - | 14(29.8) | 33(70.2) | 0.807 |
| Total | - | 113(41.85) | 157(58.14) | | - | 73(27.03) | 197(72.96) | |

NS=Non-significant, *indicates significance of value at P <0.05 level

(2001) found number of chronic diseases such as high blood pressure is the strongest predictor of self-rated health among older adults aged 70 to 79. Gowri *et al.* (2003) study showed a sharp decline perceived in health status from age 70 onwards. Majority of the elderly were reported to suffering from one ailment or other. Joshi *et al.* (2003) s' study revealed that age was negatively and significantly associated with health. Thus, as age increases individual's health related quality of life deteriorates. Tajvar *et al.* (2008) reported that age negatively affected the health related quality of life on physical health than mental health. Yadav (2010) found that prevalence of depression has been found to be greater in aged 70 years and above compared to 60 to 65 years of age group.

Table 4 depicts percentage distribution of elderly by their leisure time activities. It is clear from the table that majority of the elderly reported of involving in some activities regularly like going out for walk (76.7%), Involving in religious activities (75.2%), Visiting friends (70.2%), Sleeping (63.3%), watching TV (63%), Gardening (60.9%), Listening to music (57.6%), Caring for grand children (40.6%), Reading (32.4%), Participating in sports/games (20.6%), Working part/full time (18.1%) and participating in community organization, followed by occasional involvement (18.0%, 21.7%, 24.6%, 17.4%, 32.8%, 22.8%, 22.6%, 36.7%, 16.7%, 44.3%, 31.9% and 47%) and rarely involvement (5.4%, 3.1%, 5.2%, 19.3%, 4.3%, 16.29%, 19.8%, 22.8%, 50.9%, 35.2%, 50.0% and 36.7%), respectively. Very few elderly were interested in utilizing their leisure time for political activity (3.3%)and Doing volunteer works (8.3%) regularly. Whereas 87.2 per cent and 48.9 per cent showed rare involvement in political activity and doing volunteer works. Occasional involvement in political activity and doing volunteer works was observed in 9.4 per cent and 42.8 per cent elderly. Study results are in favour of findings reported by Manu and Kumari (2007) who showed that praying and watching Television or listening to radio were the major recreational activities of the sample studied. 11.70 per cent spent their time in chatting with friends and 10.00 per cent used to read newspaper, magazines or books during leisure time. Forty per cent of the females spent their time in praying while watching television or listening radio was the recreational activity of most of the males. Based on a study by Dandekar (1996) on institutionalized elderly, 22.30 per cent reported watching Television, listening to radio and also reading. A large percentage of them spent time in prayers or Japa and meditation. Study by Mamatha and Lata (2014) showed that most of the retired senior citizens regularly engaged in leisure time activities like watching T.V., reading books, going for walk, participating in religious activities and caring for grand children, while occasionally engaged in leisure activities like listening to music, gardening and visiting friends. Retired senior citizens were rarely engaged in leisure activities like participating in community organizations, doing volunteer works and part time jobs, engaging in political activity and sports.

| Table 4 : Percentage distribution of old age subjects by their leisure time activities | | | | |
|--|------------|--------------|-----------------|--|
| Leisure time activities | Regularly | Occasionally | Rarely N (%) | |
| Leisure unie activities | N (%) | N (%) | | |
| Watching TV | 340 (63.0) | 177 (32.8) | 23 (4.3) | |
| Listening to music | 311 (57.6) | 122 (22.6) | 107 (19.8) | |
| Visiting friends | 379 (70.2) | 133 (24.6) | 28 (5.2) | |
| Gardening | 329 (60.9) | 123 (22.8) | 88 (16.29) | |
| Sleeping | 342 (63.3) | 94 (17.4) | 104 (19.3) | |
| Reading | 175 (32.4) | 90 (16.7) | 275 (50.9) | |
| Going out for walk | 414 (76.7) | 97 (18.0) | 29 (5.4) | |
| Religious activities | 406 (75.2) | 117 (21.7) | 17 (3.1) | |
| Participating in community organization | 88 (16.3) | 254 (47.0) | 198 (36.7) | |
| Caring for grand children | 219 (40.6) | 198 (36.7) | 123 (22.8) | |
| Doing volunteer works | 45 (8.3) | 231 (42.8) | 264 (48.9) | |
| Political activity | 18 (3.3) | 51 (9.4) | 471 (87.2) | |
| Working part/full time | 98 (18.1) | 172 (31.9) | 270 (50.0) | |
| Participating in sports/games | 111 (20.6) | 239 (44.3) | 190 (35.2) | |

Figures in the parenthesis indicates percentages

Correlation between health status and leisure activities among the elderly is represented in the Table 5. It is clear from the table that health status was positively and significantly correlated with leisure time activities of the elderly (r=0.33). Indicating higher the engagement in the leisure time activities, better the health status of the elderly. The good health status of the respondents could be due to their regular involvement in the leisure time activities that gives happiness to them like (Table 4) visiting their friends, gardening, going for walking, involvement in religious activities, participating in community activities, caring for grand children and attending mahila mandal and clubs. Thus majority of the elderly had no health problems (Table 1). This Study is supported by Manavva and Kamat (2009) who reported that health status was positively and significantly related with leisure time activities. Involvement in some kind of leisure activity is essential for a good quality life whether it is contact with neighbours or friends or it is some information seeking or entertainment within home by way of watching television (Mohanty, 2001). Study by Manu and Kumari (2007) showed that Prayers and meditation, attending bhajans, religious devotional discourses and visiting places of worship give elderly solace and provide peace, joy and good physical as well as mental health. According to Chadha and Easwaramoorthy (2001) leisure time activities are strongly and positively related to general well-being of the elderly. Benedetti et al. (2002) reported that active lifestyle prevented mental health problem among elderly, and non sedentary elderly people experienced lower frequency of depression. Neelankavil and Chirappanath (2012) study showed that people who participate in cultural activities are more likely to live longer because they follow a more leisurely, low risk life style. Similarly Mamatha and Lata (2014) reported positive and significant relation between health status, leisure time activities and cognitive changes with the adjustment of retired senior citizens.

| Table 5 : Correlation betwee activities among elements | en health status and leisure time derly |
|--|--|
| Variables | 'r' value |
| Leisure time activities | 0.33** |
| | - D - 0.01 |

** indicates significance of value at P < 0.01

Conclusion:

The present study revealed that majority of the elderly had no health problems. In both rural and urban

locality majority of the male and female elderly belonging to age group 60-74 years had good health status. Higher per cent of urban male and female elderly found to be involved themselves in the leisure time activities occasionally. It was interesting to note that majority of the elderly reported of involving in some activities regularly like Going out for walk (76.7%), Involving in religious activities (75.2%), Visiting friends (70.2%), Sleeping (63.3%), watching TV (63%), Gardening (60.9%), Listening to music (57.6%), Caring for grand children (40.6%), Reading (32.4%), Participating in sports/games (20.6%), Working part/full time (18.1%) and Participating in community organization. Correlation showed positively and significantly relationship between health status and leisure time activities of the elderly.

REFERENCES

- Adams, K.B., Leibbrandt,S. and Moon, H. (2011). A critical review of the literature on social and leisure activity and wellbeing in later life. *Ageing & Society*, **31**: 683–712.
- Agarawal, N. and Jhingan, P.H. (2002). Life events and depression in elderly. *Indian J. Psychiatry*, **44** (1):34-40.
- Badiger and Kamath (2008). Changes in ageing: A cohort study. Department of P.G. Studies and Research In Home Science, SNDT Women's University, Mumbai, M.S. (INDIA).
- Benedetti, R.B., Borger, L.J., Petroski, E.L. and Goncaives, H.T. (2002). Physical activity and mental health status among elderly people. *Revsaude Publication*, **42** (2): 1-6.
- Blazer, D. (2006). Successful aging. American J. Geriatric Psychiatry, 14(1): 2-5.
- Chadha, N.K. and Easwaramoorthy, M. (2001). Leisure time activities and Indian elderly. *Indian J. Gerontol.*, **15** (3&4) : 374-380.
- Dandekar, K. (1996). The Elderly In India, Sage, New Delhi, INDIA.
- Gowri, G.B. (2003). Attitudes towards old age and ageing as shown by humor. *Gerontologist*, **17**(2) : 220-226.
- Gowri, R.G., Reddy, P.J. and Usha, D. (2003). Elderly women-a study of the unorganized sector, Discovery Publishing House, New Delhi. pp. 148-151.
- Joshi, K., Avasthi, A. and Kumar, R. (2003). Health-related quality of life among the elderly in Northern India. *Health and Population–Perspective & Issues*, **26** (4):141-153.
- Jylha, M., Leskinen, E. and Alanen, A.L. (2001). Self-rated health and associated factors among men of different ages. *J. Gerontol.*, **41** (6):710-717.

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- Kohli, A. and Verma, S.K.(1997).Old age and leisure time. *Help Age India Research & Develpoment J.*, **3** (3) : 24-26.
- Larson, J., Franzen, D.A., Billing, E., Arbin, V.M., Murray, V. and Wredling, R.(2006). The impact of gender regarding psychological well being and general life situation among spouses of stroke patients during the first year after the patients stroke event : A Longitudinal Study. *Internat. J. Nursing Studies*, **45** : 257-265.
- Mamatha, S. and Lata, P. (2014). Mental ability and adjustment among retired senior citizens, Thesis, The University Of Agricultural Sciences, Dharwad, KARNATAKA (INDIA).
- Manavva, M.S. and Kamat, R. (2009). Changes in ageing: A cohort study. Thesis, Department of P.G. Studies and Research in Home Science. SNDT Women's University, Mumbai, M.S. (INDIA).
- Manu, G.V. and Kumari, K.S. (2007). Health and nutrition profile: A study in old age homes at Ernakulam, Kerala, Thesis, The Mahatma Gandhi University, Ernakulam, KERALA (INDIA).
- Mohanty, R.P. (2001). Leisure among the aged: A case study of people living in urban fringes of Bhubaneswar. *Help Age India-Research & Development J.*, **7** (2) : 16-21.
- Nagaratnamma, B. and Vimala, T.D. (2002). Factors contributing to well being and mental health of the aged men and women. *J. Comm. Guid. Res.*, **19** (1): 9-14.
- Nayer, K.B. (2000). The ageing scenario in Kerala: A holistic perspective; help age India. *Res. & Development J.*, **6** (2) :5-13.
- Neelankavil, M.F. and Chirappanath, A.K. (2012). Contemporary geriatric problems of Kerala. A socio-medical analysis Thesis, Mahatma Gandhi University, Kottayam, KERALA (INDIA).
- Paillard, B.S., Wang, H.X., Winblad, B. and Fratiglioni, L. (2009). Pattern of participation in leisure activities among older people in relation to their health conditions and contextual

factors: A survey in a Swedish Urban Area. *Ageing & Society*, **29**: 803–821.

- Peel, N.M., Mcclure, R.J. and Bartlett, H.P.(2005). Behavioral determinants of healthy aging. J. Prev. Med., 28: 298-304.
- Prakash, I.J. (2001). New hopes in the new millennium: reasons for optimism about ageing in the future. *Help Age India-Res. & Development J.*, **7** (1): 5-13.
- Pressman, S., Matthews, K. A., Cohen, S., Martire, L.M., Scheier, M., Baum, A. and Schulz, R. (2009). Association of enjoyable leisure activities with psychological and physical well-being. *Psychosomatic Medicine*, **71**: 725– 732.
- Puri, S. and Khanna, K. (1999). Health and nutrition profile of middle class flderly women living in New Delhi. *Help Age India- Research & Development J.*, 5 (3): 18-25.
- Singh, R. (2004). Ageing, a social concern. *Social Welfare*, **51**(7): 4-5.
- Siva Raju, S. and Anand, S.C. (2000). *Physical health of older persons*. New Delhi: B.R. Publishing Corporation, pp. 157-183.
- Tajvar, M., Arab, M. and Montazeri, A.(2008). Determinants of health – related quality of life in elderly in Tehran. Iran. *Bmc Public Health*, 8 : 323.
- Vijg, J. (2007). Aging of the genome. *The dual role of DNA in life and death*. Oxford University Press.
- Yadav, L.V. (2010). Depression in advanced age. *Indian Psychol. Rev.*, **74** (3): 175-180.

WEBLIOGRAPHY

The American Psychological Association (2014). Older adults health and age related changes, http://www.Apa.Org/Pi/ Aging/Resources/Guides/Older.Aspx?Item=6.

6 Year ★★★★★of Excellence★★★★