Elderly at the edge of risk in the village ecosystem

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■ **ABSTRACT :** Aging is defined as a progressive deterioration of physiological functions with age. It brings about a number of physiological changes. It not only affects a person's looks, but also becomes a cause of physical deterioration. This study was undertaken to understand the health risk of elderly people and to gather some information about their perceived health needs in the village ecosystem of Udham Singh Nagar district of Uttarakhand, India. The present study is descriptive in nature. Herein, an attempt is made to describe the situation and major health problems faced by the elderly from 140 samples of aged 60 and above in seven rural communes of Udham Singh Nagar. Findings reveal that majority of the elderly, both male and female, are unhealthy. The most common health problems aged people face include eye sight, joint pains, weakness, digestion complaints and others. More health problems were reported by female compared to male.

■ **KEY WORDS:** Ageing, Physiological functions, Elderly, Village ecosystem, Health problems

During the 21st century, the major challenges which most of the countries worldwide are facing is ageing *i.e.*, increase in the numbers of the aged population (60 years and above) in the existing population. As far as our nation India is concerned, though the share of elderly population seems to be somewhat small, but the actual number is quite large and one cannot deny the fact that upcoming society will be dominated by the elderly. As a result issues related to ageing are becoming important in Indian context (Liebig and Rajan, 2003). India, being a developing country this may pose mounting pressures on various socio-economic fronts including pension outlays, health care expenditures, fiscal discipline, savings levels etc. This segment of population faces multiple physiological and medical problems which ruin their life.

Though the condition of the elderly is far better in urban areas as there are provisions of Old age Houses, and even the people are aware about their pension and Insurance, but the condition is just reverse in the Indian villages. As of 75 per cent of elderly persons are living in rural areas (Hiremath, 2012). Hence the elderly within rural communities are a population of special concern. As they often tend to lose good quality of their life, due to several family situations, hence obtaining and maintaining health care at minimal. Aside from common barriers, including shortage of care providers and facilities, elderly face other challenges such as inadequate health care coverage, limited access to health information, and on the top of it their being involved in all odd activities at household level. Thus, there arises an emerging need to pay greater attention to ageing -

related issues and to promote holistic facilities, policies and programs for dealing with the emerging ageing society in order to provide them a better life.

Objectives :
– To study the demographic profile of the elderly.
– To record the impairment profile in terms of:
- Day to day activities
- Functional limitations
- Health related problems
- Vision
- Disability status

■ **RESEARCH METHODS**

The study had been carried out in the G.B. Pant University of Agriculture and Technology, Pantnagar (U.S. Nagar), Uttarakhand. Descriptive research design was adopted. Multistage random sampling procedure was followed to select the sample. On the whole 7 villages of 1 block of Udham Singh Nagar, Uttarakhand of India were taken. From 7 villages total 140 samples from different families were selected. The data were collected through interviewing questionnaire. A pre-designed questionnaire was used to collect information about demographic and impairment profile of the rural elderly. Simple averages and percentages were calculated and analyzed.

■ **RESEARCH FINDINGS AND DISCUSSION**

The findings of the present study as well as relevant discussion have been presented under following heads :

Demographic profile of the elderly :

Old age determines the maturity of an individual and has a bearing on the thinking, experience and exposure of a person that are achieved at different stages of life. Table 1 show that a major fraction (40%) of the population was in the age group of 70-75 years old, while a small fraction (2.86%) were 75-80 years old. Males and females formed an equal proportion of the study sample. Approx 43 per cent of the females elderly were mainly found in the age group of 70-75 years as compared to male elderly (41.43%) who were mainly found in the age group of 60-65 years.

Literacy was found to be low in the study population. Majority of female elderly (70%) were illiterate whereas majority of male elderly (60%) have education of primary school. Most of the elderly (82.86%) were married. Only 14.29 per cent of the male elderly were widowed while 20 per cent of the female elderly were widows. A joint family system was seen to be the most common (67.14%) among the population interviewed followed by the nuclear family (32.86%).

Impairment profile of rural elderly :

The responses regarding the daily activities performed by the rural elderly were analyzed and presented in Table 2. The rural areas, it is a common practice among older people to use walking stick as age advances. However, in the present study a majority of the elderly (85.71%) respondents are not using walking sticks as they could walk without any difficulty. About 14 per cent use walking sticks only when they go out.

In the evident from Table 2 that compared to male

Table 1 : Demographic distribution of the elderly		Female (n=70)	Male (n=70)	Total (n=140)
Demographic characteristics		Female (n=70)	Male (n=70)	Total (n=140)
Age	60 years to 65 years	11 (15.71)	29 (41.43)	36 (25.71)
	65 years to 70 years	26 (37.14)	18 (25.71)	44 (31.43)
	70 years to 75 years	30 (42.86)	22 (31.43)	56 (40.00)
	75 years to 80 years	3 (4.29)	1 (1.43)	4 (2.86)
Education	Illiterate	49 (70.00)	28 (40.00)	77 (55.00)
	Primary school	21 (30.00)	42 (60.00)	63 (45.00)
	Middle school and above	-	-	-
Marital Status	Unmarried	-	-	-
	Married	56 (80.00)	60 (85.71)	116 (82.86)
	Widow/widower	14 (20.00)	10 (14.29)	24 (17.14)
Type of Family	Nuclear	25 (35.71)	21 (30.00)	46 (32.86)
	Joint	45 (64.29)	49 (70.00)	94 (67.14)

(Figures in parentheses indicate the percentage)

elderly, the percentage of female elderly who could perform regular tasks such as dressing, bathing and going to toilet, with difficulty, is more. A majority of the elderly can perform their physical work without any difficulty.

However, there is also a significant percentage of elderly who reported that they are able to perform these tasks with difficulty.

The study further explored the nature of functional

Table 2 : Sex wise percentage distribution of the elderly by their day to day activities						
	Female (n=70)		Male (n=70)		Total (n=140)	
Day to day activities	Can do without any difficulty	Can do with difficulty	Can do without any difficulty	Can do with difficulty	Can do without any difficulty	Can do with difficulty
Walking	58 (82.86)	12 (17.14)	62 (88.58)	8 (11.42)	120 (85.71)	20 (14.29)
Bathing	61 (87.14)	9 (12.86)	63 (90.00)	7 (10.00)	124 (88.58)	16 (11.42)
Dressing	64 (91.42)	6 (8.58)	65 (92.86)	5 (7.14)	129 (92.14)	11 (7.86)
Toileting	51 (72.86)	19 (27.14)	59 (84.29)	11 (15.71)	110 (78.58)	30 (21.42)

(Figures in parentheses indicate the percentage)

Table 3 : Sex wise percentage distribution of the elderly by their functional limitations						
Functions	Female (n=70)		Male (n=70)		Total (n=140)	
	Yes	No	Yes	No	Yes	No
Upper body functions						
Lift or carry 10 kilos	36 (51.42)	34 (48.58)	56 (80.00)	14 (20.00)	92 (66.71)	48 (34.29)
Sit for two hours	56 (80.00)	14 (20.00)	58 (82.86)	12 (17.14)	114 (81.42)	26 (18.58)
Reach overhead	53 (75.71)	17 (24.29)	56 (80.00)	14 (20.00)	109 (77.86)	31 (22.14)
Reach out as if to shake hands	62 (88.58)	8 (11.42)	67 (95.71)	3 (4.29)	129 (92.14)	11 (7.86)
Use fingers to grasp objects	59 (84.29)	11 (15.71)	61 (87.14)	9 (12.86)	120 (85.71)	20 (14.29)
Lower body functions						
Walk 500 meters	58 (82.86)	12 (17.14)	60 (85.71)	10 (14.29)	118 (84.29)	22 (15.71)
Walk up 10 steps without rest	59 (84.29)	11 (15.71)	61 (87.14)	9 (12.86)	120 (85.71)	20 (14.29)
Stand for 2 hours	21 (30.00)	49 (70.00)	28 (40.00)	42 (60.00)	49 (35.00)	91 (65.00)
Stoop, crouch, or kneel	48 (68.58)	22 (31.42)	51 (72.86)	19 (27.14)	99 (70.71)	41 (29.29)

(Figures in parentheses indicate the percentage)

Table 4 : Sex wise percentage distribution of the elderly by their health problems											
Statements	Female (n=70)				Male (n=70)				Total (n=140)		
	Almost never	Quite seldom	Quite often	Almost always	Almost never	Quite seldom	Quite often	Almost always	Almost never	Quite seldom	Quite often	Almost always
Disturbed appetite	-	42 (60.00)	28 (40.00)	-	-	49 (70.00)	21 (30.00)	-	-	91 (65.00)	49 (35.00)	-
Indigestion	7 (10.00)	25 (35.71)	34 (48.58)	4 (5.71)	10 (14.28)	21 (30.00)	33 (47.14)	6 (8.58)	17 (12.14)	46 (32.85)	67 (47.86)	10 (7.15)
Constipation	8 (11.42)	42 (60.00)	20 (28.58)	-	10 (14.29)	40 (57.14)	20 (28.57)	-	18 (12.85)	82 (58.58)	40 (28.57)	-
Chest pain	20 (28.58)	28 (40.00)	22 (31.42)	-	11 (15.71)	20 (28.58)	33 (47.14)	6 (8.57)	31 (22.14)	48 (34.29)	55 (39.29)	6 (4.28)
Shortness of breath	7 (10.00)	28 (40.00)	35 (50.00)	-	5 (7.14)	24 (34.29)	41 (58.57)	-	12 (8.57)	52 (37.14)	76 (54.29)	-
High blood pressure	15 (21.43)	25 (35.71)	30 (42.86)	-	18 (25.71)	35 (50.00)	17 (24.29)	-	33 (23.57)	60 (42.85)	47 (33.58)	-
Weakness	-	26 (37.15)	32 (45.71)	12 (17.14)	-	25 (35.71)	35 (50.00)	10 (14.29)	-	51 (36.42)	67 (47.85)	22 (15.71)
Joint pains	5 (7.14)	30 (42.86)	25 (35.71)	10 (14.29)	6 (8.57)	40 (57.14)	20 (28.58)	4 (5.71)	11 (7.86)	70 (50.00)	45 (32.14)	14 (10.00)

(Figures in parentheses indicate the percentage)

limitations for the elderly sample by identifying limitations on upper and lower body functions. Upper body functions comprised lifting or carrying 10 kilos, sitting for two hours, reaching overhead, reaching out as if to shake hands, and using fingers to grasp objects. Lower body comprise walking 500 meters; walking up 10 steps without rest; standing or being on their feet for two hours; stooping, crouching, or kneeling.

While only a small proportion (about 7-35%) of the sample reported having an upper body limitation, about 14-65 per cent of the total sample indicated having a lower body limitation. The most commonly reported functional limitation was reach overhead (22.14%), lift or carry 10 kilos weight (34.29%), stooping, crouching or kneeling (29.29%), and standing for two or more hours (65%). Substantial variation between female and male elderly can be seen in Table 3. Overall, males were far less likely than females to report limitations in bodily functioning.

Table 4 envisages the detailed information of health related problems of the elderly. It indicate that most of the elderly represented by a slightly more number of females than males reported various health problems more often. The problem of indigestion, constipation and weakness are common for both females and males. However, it is evident that chest pain and shortness of breath are more common in male elderly whereas disturbed appetite and joint pain are found to be reported mostly by female elderly.

Table 5 shows that the eyesight of the majority of the elderly (about 33-55%) is reported to be good with or without spectacles. More of females (14.29%) reported difficulty in seeing as compared to males (10%).

Similar findings were reported in a study conducted by Kaur *et al.* (1987), a majority of elderly persons (48%) reported poor eye sight.

Table 6 reveals that more than half of the elderly (54.29%) reported no disability. However, 30 per cent of the elderly reported having one disability and 12.14 per cent are found to be with two disabilities. Only 3.57 per cent of them were suffering more than two disabilities.

More of male elderly (32.85%) were suffering only with one disability while 14.29 per cent female elderly suffering with two disabilities. A study conducted by Audinarayana and Sheela (2002) revealed that half of the elderly population in the study area is suffering from one or the other forms of physical disability. Hajbaghery (2011) found in his study that overall, 37.1 per cent had mild ageing disability, 38.6 per cent moderate, 20.0 per cent severe and 4.3 per cent extreme disability.

Conclusion:

It is observed that the age-related changes often negatively affect our health and independence. Hence the elderly experience changes in different aspects of their lives. The physiological decline in ageing refers to the physical changes an individual experiences because of the decline in the normal functioning of the body resulting in poor mobility, vision, inability to eat and digest food properly, a decline in memory, the inability to control certain physiological functions and various chronic conditions. Hence need is to provide appropriate living environments for older persons which enable them to participate fully in the community.

Table 5 : Sex wise percentage distribution of the elderly by their eye sight			
Vision	Female (n=70)	Male (n=70)	Total (n=140)
Good without glasses	21 (30.00)	26 (37.14)	47 (33.57)
Good with glasses	39 (55.71)	37 (52.86)	76 (54.29)
Difficulty in seeing	10 (14.29)	7 (10.00)	17 (12.14)

(Figures in parentheses indicate the percentage)

Table 6 : Sex wise percentage distribution of the elderly by their disability status			
Statement	Female (n=70)	Male (n=70)	Total (n=140)
No disability	39 (55.71)	37 (52.86)	76 (54.29)
Suffering with one disability	19 (27.14)	23 (32.85)	42 (30.00)
Suffering with two disabilities	10 (14.29)	7 (10.00)	17 (12.14)
Suffering with more than two disabilities	2 (2.86)	3 (4.29)	5 (3.57)

(Figures in parentheses indicate the percentage)

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