Wellbeing and Health Condition of Elderly People in Eastern Uttar Pradesh

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ABSTRACT

Healthcare continues to pose a major challenge for developing countries. The successes of individual health programmes remain overshadowed by the problems these nations face in the 21st century. With a falling birth-rate and people living longer, it is inevitable that our community is ageing. It is no surprise that geriatric medicine, the medical care of the elderly, has quickly evolved into a major specialty.

We find that the main factor that has contributed to the not proper health care has been the increase in the migration and busy in work. Population ageing is an unavoidable and irreversible change which comes through demographic transition in all societies. India is in the third stage of its demographic transition. The age structure of the country reveals that it has been ageing rapidly.The elderly need certain amenities such as health care, nutrition, and a sense of belonging, but the type and amount of treatment they receive mainly depend on the culture of the family.

Keywords: Elderly, Old age support, Social and economic status, Geriatric Depression Scale.

Introduction

In India, the family is the great single source of support and the center of activity for most elderly people, but the decrease in the number of children, and their dispersion owing to migration and urbanization reduced the care of dependent old parents. The elderly need certain amenities such as health care, nutrition, and a sense of belonging, but the type and amount of treatment they receive mainly depend on the culture of the family. Usually, elderly peoples are neglected by the family members unless they are well-to-do or still earning members (Alok et al.2003; Patel, 1997; Sureender, 1997; Vijayanunni, 1997; Yadava, et al 1996).

Low social and economic status, high rate of illiteracy, and a general lack of basic amenities constitute a major problem for the elderly population, particularly in rural areas. Life becomes increasingly stressful during the ageing process and elderly people become a liability, rather than an asset, to the families and communities involved (Yadava et al 1996). Social and the quality of relationship with sons and daughters largely decide the economic factors, which, in turn, determine the health of the elderly people (Bose, 1994).

A number of studies dealing the elderly have discussed the relationships among morbidity or health status, age, sex and marital status of elderly, but no universal pattern have established so far. For example, an increased morbidity with increased age, but greater among men than women and more among rich people than poor (Murray et al. 1992), no consistent increase in morbidity with age (Knodel et al. 1992), increased morbidity with increased age and more among female in the beginning of ageing (Strauss et al. 1992), increased prevalence of chronic morbidity with increased age of elderly people and more among women than men (Nair, 1998; Devi and Bagga, 1997) and an increased survival of currently married elderly or living with their sons or daughters (Mostafa and Ginneken, 2000).

In this paper information on health condition have been analyzed. When the elderly engage themselves in any economic activity and also when they possess assets then it provides a sense of security to them. Also good physical and mental health plays an important role in it.

Health is considered as state of complete physical & mental wellbeing. An individual's capacity to participate in an economic activity to a greater extent is determined by health status .It is natural that at old age persons will experience a declining health. Health needs of elderly are different from other age groups. There is a greater chance that the specific needs of older people are being unaddressed in developing countries.Hence the health's care of elderly demands for priority in the millennium.

Considering the existing high burden of health care on the family, the government may have to provide not only more medical facilities but also ensure adequate financing mechanism. This is going to be an important challenge, particularly with the rapid increase in the life expectancy. At present, the health insurance coverage for the elderly population is very low. Not only is there poor coverage, but even the general awareness level on existing health insurance schemes are very limited.

The Data and Methodology

Sampling Procedure and Sample Size Formula:
A multistage sampling method was used to select thesample for the study. A caveat needs to be mentionedhere. Though care was taken to avoid investigator biasin selecting the sample for the study by using a randomsample, 60 years and above 60 years, each respondent onselected villages was approached during data collection.In this manner, a list with a total of 410 elderly wasenumerated from all the four districts in eastern UttarPradesh.The required number of sample households would be

$$n_h = m \times n = m \times \{p\,(1-p)\,(z^2/e^2) \times f\}$$

where n is the required sample size for elderly havingsolitary living; m is the required number of households toget at least one such elderly;

p is the proportion of elderlyliving alone; z is 1.96 (z value at 5% level of significance);e is 0.05 (amount of admissible error); f is 1.5 (assumeddesign effect).

Thus, as an approximation, suppose that about 6%of the elderly live alone in rural areas (Central Region,NFHS-3), then

n = p (1 − p) (z2/e2) × f = 86.68 × 1.5 = 130 (approx.)

In order to ensure separate estimates based on location (districts with low, medium, and high composite index),at least three estimates will be needed. Thus, the required minimum sample size will be 130 × 3 = 390.The sample has to increase by 5% to account for contingencies, such as non response or recording error. n + 5% = 390 × 1.05 = 409.5 ~ 410 As per government reports (census, NFHS), from three households in a village of eastern Uttar Pradesh, one can get at least one elderly person. Thus, nh= 410 × 3 = 1,230 households. Therefore, 1,230 households will be chosen from the rural areas to get the required number of elderly in the sample.

The aim of this paper is to study the status of elderly particularly their health position and factors affecting therein. Chi-square is carried out to study the relationships of several socio-economic, demographic and cultural factors on the health status of elderly. Explanatory factors are taken on both household and individual (elderly) levels. The analysis is carried out in likelihood association of the dependent variable (health status of elderly) is examined across various socio-economic, demographic and cultural explanatory variables through chi-square test statistic.

Result and Discussion

Table 1: Percentage distribution of the elderly according to their demographic and socio-economic characteristics

Variables	N	Percentage
Gender		
Male	280	68.29
Female	130	31.71
Age		
60-69	257	62.68
70-79	116	28.29
80 & above	37	9.02
Marital status		
Unmarried	08	1.95
Currently Married	238	58.05
Widow	102	24.88
Widower	62	15.12
Caste		
General	183	44.63
OBC	126	30.73
SC/ST	101	24.63
Educational status		
Illiterate	217	52.93
Primary	59	14.39
Secondary	65	15.85

High School	33	8.05
Intermediate	15	3.66
Graduate & above	21	5.12
Present occupation		
Agriculture	61	14.88
Agriculture laborer	79	19.27
Industrial Laborer	13	3.17
Service	20	4.88
Business	11	2.68
Nothing/Other	226	55.12
Occupation prior 60 years of age		
Agriculture	116	28.29
Agriculture laborer	120	29.27
Industrial Laborer	22	5.37
Service	61	8.05
Business	29	7.07
Nothing/Other	62	10.00
Total	**410**	**100.00**

Above table shows that the elderly belonging to male & female are 68.29 and 31.71 percent respectively in the study area. About 63 percent of elderly belong to age group 60-69 , 28.29 percent group 70-79 and 9.02 percent age 80+.Only 1.95 percent unmarried , 58.05 percent currently married , 24.88 percent widow & 15.12 percent widower. About forty five percent of surveyed households belong to General categories, 30.73 percent of other backward classes and 24.63 percent to SC/ST castes.

About 53 percent of elderly in surveyed area are illiterate, 14.39 percent primary class,15.85 secondary,8.05 high school,3.66 intermediate and only 5.12 percent graduate and above. Majority of survey household 57.56 in selected area main occupation is agriculture and agriculture labor, about 20% of elderly based on salary (industrial labor, government job & private services), 7.07percent reported that they have small business and only 3.90 women reporting that they have only 3.90 woman reporting that they have only do kitchen work.10.00 percent elderly reported that they have do not do anything.

Table 2:Distribution of elderly on the basis of mental health status by type of background characteristics

Background Characteristics	GERIATRIC DEPRESSION SCALE			$\chi 2$ value
	Normal	**Mild**	**Severe**	
AGE GROUP				
60-69	85(33.07)	92(35.80)	80(31.13)	**16.81**
70-79	23(19.83)	42(36.21)	51(43.97)	**0.002**
80+	03(8.11)	15(40.54)	19(51.35)	
GENDER				
Male	94(35.57)	107(38.21)	79(28.21)	**31.54**

Female	17(13.08)	42(32.31)	71(54.62)	**0.000**
CASTE				
SC/ST	21(20.79)	33(32.67)	47(46.53)	**7.35**
OBC	37(29.37)	43(34.13)	46(36.51)	**0.119**
General	53(28.96)	73(39.89)	57(31.15)	
TYPE OF FAMILY				
Nuclear	17(14.17)	40(33.33)	63(52.50)	**22.61**
Joint	94(32.41)	109(37.79)	87(30.00)	**0.000**
MARITAL STATUS				
Other	14(8.14)	65(37.79)	93(54.07)	**64.16**
Currently Married	97(40.76)	84(35.29)	57(23.95)	**0.000**
TYPE OF CARDS				
BPL	26(29.55)	28(31.82)	34(38.64)	**1.01**
Other	85(26.40)	121(37.58)	116(36.02)	**0.603**
SOCIAL STATUS				
Low	72(25.62)	94(33.45)	115(40.93)	**11.56**
Medium	28(26.92)	47(45.19)	29(27.88)	**0.032**
High	11(44.00)	8(32.00)	6(24.00)	
ECONOMIC STATUS				
Poor	38(27.94)	39(28.68)	59(43.38)	**10.57**
Middle	28(22.95)	45(36.89)	49(40.16)	**0.032**
Rich	45(29.61)	65(42.79)	42(27.63)	
Total				

The present study also tries to capture the psychosomatic status of elderly by measuring the level of depression status. In the geriatric depression, scale questions are answered "Yes" and "No". The GDS is commonly used as a routine part of the comprehensive geriatric assessment. One point is assigned to each answer and the cumulative score is rated on a scoring grid. The grid sets a range of 0-9 as "Normal", 10-19 as "mildly depressed", and 20-30 as "severely depressed".

The level of depression among elderly has been measured on the basis of 30 point scale (table). Elderly giving response between 20 to 30 statements scored has been rated as a patient of severely depressed and 10 to 19 statements scored has been rated as a patient of mild depressed state. Elderly scoring 0 to 9 statements were rated as normal. The result seems to alarm as about 42 percent elderly were suffering from severe depression and 37 percent of mild depression. The above result shows that the percent of severely depressed patient increase with increase in their age.

About 31 percent severely depressed patient were in the age group 60-69, 44 percent in the age group 70-79 and maximum 52 percent aged above 80. In SC/ST category there were more severely depressed elderly when compared to OBC and general category elderly. Also more depressed elderly were part of nuclear family when compared to Joint family. More elderly other than presently married category (Alone, Widow /Widower) were found suffering from severe depression. About 24.00 percent of elder low social status reported that they were suffering from severe depression, 32.00 percent mild and 24.00 percent from

normal. About 28.00 percent of elder poor economic status reported that they suffering from severe depression, 43.00 percent mild and 30.00 percent from normal. The mental health and age, gender, type of family, marital status is highly associated ($p<0.01$).The association between mental health and social status, economic status gender, type of family, marital status is associated ($p<0.05$). Above results show that no association between caste and type of cards with mental health.

Table 3: Distribution of elderly on the basis of their health status and background variables.

Background	Good	Bad	Total	χ 2 value
Gender				
Male	176(62.86)	104(37.14)	280(68.29)	**2.52**
Female	71(54.62)	59(45.38)	130(31.71)	**0.113**
Age Group				
60-69	167(64.98)	90(35.02)	257(62.68)	**6.72**
70-79	62(53.45)	54(46.55)	116(28.29)	**0.035**
80+	18(48.65)	19(51.35)	37(09.02)	
Educational Status				
Illiterate	120(55.30)	97(44.70)	217(52.93)	**4.705**
Literate	127(65.80)	66(34.20)	193(47.07)	**0.03**
Marital Status				
Others	93(54.07)	79(45.93)	172(41.95)	**4.72**
Current Married	154(64.71)	84(35.29)	238(58.05)	**0.03**
Type of work				
Agriculture	47(77.05)	14(22.95)	61(14.28)	**27.34**
Labor	67(65.05)	36(34.95)	103(25.12)	**0.00**
Services	19(95.00)	1(5.00)	20(4.88)	
Others	114(50.44)	112(49.56)	226(25.12)	
Economic Status				
Low	159(56.58)	122(43.42)	281(68.54)	**5.24**
Middle	70(67.31)	34(32.69)	104(25.37)	**0.15**
High	18(72.00)	7(28.00)	25(6.10)	
Social Status				
Low	72(52.94)	64(47.06)	136(33.17)	**11.89**
Middle	67(54.92)	55(45.08)	122(29.76)	**0.003**
High	108(71.05)	44(28.95)	152(37.07)	
Type of Family				
Nuclear	60(50.00)	60(50.00)	120(29.27)	**7.43**
Joint	187(64.48)	103(35.52)	290(70.73)	**0.006**
Social Category				
SC/ST	50(49.50)	51(50.50)	101(24.63)	**12.82**
OBC	91(72.22)	35(27.78)	126(30.73)	**0.002**
General	106(57.92)	77(42.08)	183(44.63)	
Type Of house				
Kuccha	31(47.69)	34(52.31)	65(15.85)	**6.089**
Semi Pucca	64(58.72)	45(41.28)	109(26.59)	**0.048**
Pucca	152(64.41)	84(35.59)	236(57.56)	

Number Of Family Member			
One	5(50.00)	5(50.00)	10(2.44)	
Two	11(44.00)	14(56.00)	25(6.10)	
Three	4(30.77)	9(69.23)	13(3.17)	**10.23**
Four	16(72.73)	6(27.27)	22(5.37)	**0.069**
Five to Seven	91(64.08)	51(35.92)	142(34.63)	
More than Seven	120(60.61)	78(39.39)	198(48.29)	

The association between the current health status and various socio-economic, demographic and cultural variables are discussed and results are given in Table 2. It was found that about 37 per cent males and 45 per cent female elderly belonged to bad health condition. Moreover, health status of elderly was found not significantly associated with sex (χ^2 =2.52; d.f.=1) and the prevalence of bad health condition was found more among females than male elderly. An age wise health status of elderly indicates that about 35, 46 and 51 per cent elderly of 60-69, 70-79 and 80+ years age groups respectively had bad health. Thus the health status of elderly was found associated with the age (χ^2= 6.72 ; d.f.=2) an increased bad health condition was reported with increased age of the elderly people.

Impact of education can not be ignored in assessing and measuring the health status of elderly people because an adequate educational attainment is related to an 'acceptable' social behaviour (Basu and Basu, 1987). About 45 per cent elderly belonging to illiterate possessed had bad health, whereas only 34 per cent elderly having education up to high school or above possessed bad health. However, no significant association was observed between education and health status of elderly (χ^2 =4.71 ; df=1) (Table 2).

So far the condition of health status of elderly people according to marital status is concerned; it was found that the health status of currently married elderly was better as compared to widow/widower or singles.

About 35 per cent elderly who were currently married possessed bad health, while more than this about 46 per cent widows or widowers were in bad health condition. However, the status of health was not found associated with marital status of the elderly (χ^2 =4.72; d.f.=1).

As mentioned elsewhere, caste plays an important role in socio-economic and cultural stratification of society in India by classifying people in endogamous groups with each group having a common surname. Caste is hereditary trait and it largely determines the function, status, opportunities available for advancement in life, and the handicaps and obstacles towards greater vertical mobility. It also determines the differences in cultural patterns and practices. The caste system in India still

dominates her cultural life, particularly in the rural areas. Compared to the lower caste families, the family behaviour of upper castes toward their elderly persons is usually found better (Gulati, 1989; Yadava et al, 1996). Table 5.8 shows that about 42 and 28 per cent elderly belonging to General and OBC caste groups had good health status. It is interesting to note that the elderly of schedule caste and schedule tribe, who are supposed to be more deprived, about 50 per cent had bad health. Nevertheless, caste was found significantly related with the health status of elderly in caste of the study (χ^2= 12.82 ; d.f.= 3). Significant association was observed between Caste and health status of the elderly.

It has been seen that the health status of family members of a household is found, to some extent, dependent on socio-economic status of the household. This sample study reports that about 47, 45 and 29 per cent elderly who belonged respectively to low, middle and high social status group of the households possessed bad health (Table 2). Nevertheless, statistically significant association was found between the health status of elderly and social status of their households (χ^2 =11.89; df=2).More or less a similar pattern was observed between economic status of the households and health status of the elderly but its not statistically significant (χ^2 =6.3 ; d.f.=2). About 43, 33 and 28 per cent elderly belonging to low, middle and high economic status of households respectively possessed bad health. Less percentage of elderly having bad health in low social and economic groups of the households may be that people of this category being economically weak mostly involved in manual works for their survival do not report of a disease unless it becomes more serious or unbearable.

**Figure 1: Distribution of elderly on the Basis of Treatment organization**
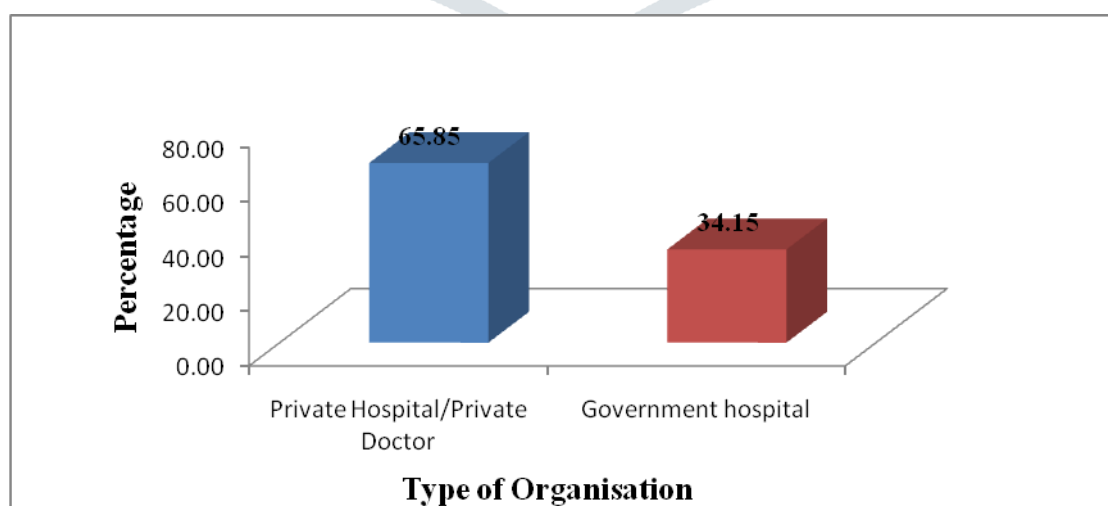
As seen from the figure two type of hospitalized treatment was present in the study area. More than half of the elderly preferred to go for treatment in private hospital/private doctor and 34.15 percent of elderly in the

government hospital. This may be because of easy and better availability of private medical facility in rural areas.

Figure 2: Distributions of elderly according to distance treatment places

Health care center availability and distance contribute to the major part of aggregate health care facility condition in the area.
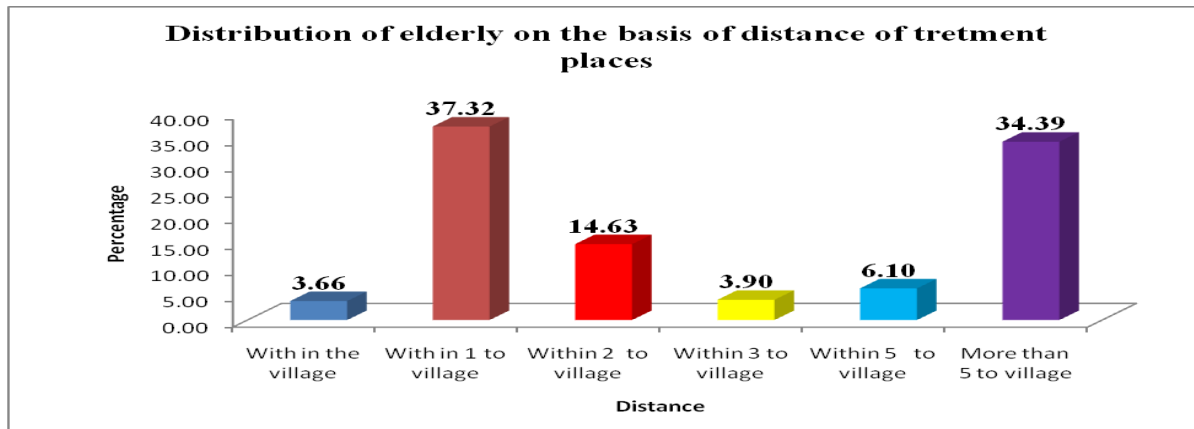
Above figure shows that only 3.66 percent elderly reported that health facility was available in their village. 37.32 percent reported availability of health facility within one kilometer from their village; however, 34.39 percent reported that health facility was available at more than five kilometers from their village.

Summary

The association between the current health status and various socio-economic, demographic and cultural variables are discussed. It has been seen that the health status of family members of a household is found, to some extent, dependent on socio-economic status of the household. More than half of the elderly preferred to go for treatment in private hospital/private doctor. This sample study reports that low social status group of the households possessed bad health. Moreover, health status of elderly was found not significantly associated with sex and the prevalence of bad health condition was found more among females than male elderly. Thus the health status of elderly was found associated with the age an increased bad health condition was reported with increased age of the elderly people. In SC/St category there were more severally depressed elderly when compared to OBC and general category. More depressed elderly were part of nuclear family when compared to joint family.

References

Alok, Kumar, Sagaza, H. and Yadava, K.N.S. (2003). Elderly: Demographic profiles and related issues in rural Northern India. Paper presented in The 7th Asian/Oceania Regional Congress of Gerontology, during Nov.24-28, Tokyo.

Bose, Anil B. (1994). Policies and programmes for the ageing in India. The Ageing of Asian Populations, United Nations, New York: 71-75.

Devi, Dayabati and Bagga, Amrita. (1997). Health status of older women of Manipur. Ageing and Society 7 (2): 27-42.

Gulati.S.C. (1989). Demographic Determinants of the Ageing Process: A cross country analysis. Demography India, 18(1): 211-225.

Knodel, J., Chayovan, N. and Siriboon, S. (1992). The familial support system of Thai elderly: An overview. Asia-Pacific Population Journal 7(3): 105-26.

Mostafa, G. and Ginneken, J.K. (2000).Trends and determinants of mortality in the elderly population of Matlab, Bangladesh. Social Science and Medicine, 50: 763-771.

Murray, C.J.L., Yang, G. and Qiao, X. (1992). Adult mortality: Levels, trends and causes. In Feachan, et al (eds.) The Health of Adults in the Developing World, Washington, D.C.: The World Bank.

Nair, P.S. (1998). The aged in rural India: A study of socio-economic and health profile. In Singh, et al. (eds.) Population Transition in India, Vol.2, Delhi: B.R. Publishing Corporation.

Strauss,J.J., Gertler, P., Rahman, O. and Fox, K. (1992). Gender and life cycle differential in the patterns and determinants of adult health. Santa Monica: RAND Corporation, USA.

Yadava, K.N.S., Yadava, Surender S. and Roberts E. Ron (1996). Ageing and Health Hazards in Rural North India. Health and population - Perspectives and Issues, 19(1): 1-18.