



## HEALTH PROBLEMS AMONG ELDERLY POPULATION -A STUDY IN RURAL TAMILNADU

### Social Science

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### ABSTRACT

In many parts of the developing world, chronological time has little or no importance in the meaning of old age. Other socially constructed meanings of age are more significant such as the roles assigned to older people; in some cases it is the loss of roles accompanying physical decline which is significant in defining old age. The prime objectives of the study to understand the patterns of health problems among elderly, the socio economic and demographic differentials on health problems and study the effect of different socio economic and demographic variables on health problems in the study. The present study is a primary data of 400 elderly persons selected randomly from two districts of Tamilnadu namely Kanchipuram and Cuddalore districts. The statistical tools such as percentage, chi-square and multinomial logistic regression has used. The result shows that overall 61 percent of respondents reported that they have any one of the health problem at the time of interview. Based on the classification of general and chronic health problems, 34 percent have suffered by general and 26.4 percent by chronic health problems.

### KEYWORDS:

Health, Chronic Problem, Ageing

### Introduction

"The ageing process is of course a biological reality which has its own dynamic, largely beyond human control. However, it is also subject to the constructions by which each society makes sense of old age. In the developed world, chronological time plays a paramount role. The age of 60 or 65, roughly equivalent to retirement ages in most developed countries is said to be the beginning of old age. In many parts of the developing world, chronological time has little or no importance in the meaning of old age. Other socially constructed meanings of age are more significant such as the roles assigned to older people; in some cases it is the loss of roles accompanying physical decline which is significant in defining old age. Thus, in contrast to the chronological milestones which mark life stages in the developed world, old age in many developing countries is seen to begin at the point when active contribution is no longer possible." (Gorman, 2000)

Old age presents its special and unique problems but these have been aggravated due to the unprecedented speed of socioeconomic transformation leading to a number of changes in different aspects of living conditions. The needs and problems of the elderly vary significantly according to their age, socioeconomic status, health, living status and other such background characteristics (Siva Raju, 2002).

The many physiological, economic, emotional and interpersonal facts of ageing influence the social functioning and well-being of individuals in different ways. Changing traditional values, mobility of the younger generation, changes in family structure and role of women have contributed to a 'crisis in caring' for the elderly (Prakash, 2004).

India is in a phase of demographic transition. As per the 1991 census, the population of the elderly in India was 57 million as compared with 20 million in 1951. There has been a sharp increase in the number of elderly persons between 1991 and 2001 and it has been projected that by the year 2050, the number of elderly people would rise to about 324 million. The demographic transition is attributed to the decreasing fertility and mortality rates due to the availability of better health care services. It has been observed that the reduction in mortality is higher as compared with fertility. There has been a sharp decline in the crude death rate from 28.5 during 1951-1961 to 8.4 in 1996; while the crude birth rate for the same time period fell from 47.3 to 22.8 in 1996 (Rajan 2003).

India's elderly are growing faster than the general population according to the 2001 census estimates, the elderly constitute about 7.45 % of the total population. India is one of the life expectancy of women is elderly sex- ratio favors males. Given that the life expectancy of women is greater, this anomaly can only be explained by cultural factors where girls and women are relatively devalued. Declines in fertility and mortality rates are changing the dependency ratio of young and old to working age population quite rapidly such that while the first is decreasing, the latter is rising. Dependency ratios for the old have been rising from 10.5 in 1961 to 11.8 in 1991 and it is projected to be 16.1 by 2021 (Rajan, et.al, 1999).

### Objectives

- To understand the patterns of health problems among elderly population in the study area.
- To find out the socio economic and demographic differentials on health problems among elderly population.
- To study the effect of different socio economic and demographic variables on health problems.

### Data and Methodology

The data for the present study is a primary data of 400 elderly persons selected randomly from two districts of Tamilnadu namely Kanchipuram and Cuddalore districts. Multistage random sampling techniques are used to select the sample population (4 Villages, each two villages, from each districts and equal number of males and females). The different health problem among the elderly population is calculated with the help of percentage distribution. To understand the association between background variable and health problems, cross tabulation and chi-square is applied and to examine the determinants of different health problems with background variables, multinomial logistic regression has used.

Multinomial logistic regression analysis is used generally when the dependent variable is more than two. To be specific: if the dependent variable is health problems, the variable is coded as 0= no problems, 1= general problems, and 2= chronic problems. This analysis shows the independent variable influence of each variable on dependent variable after controlling for rest of selected variable. Further the relative's risk of the dependents variable could also be measure between different categories of explanatory variables.

### Results and Discussion

The dependent variable health problem was grouped into three categories. Those who don't had any problems, those who had

chronic problems and those who had general problems at present condition. The persons who had chronic problems include BP/Sugar, Cancer and Heart diseases. The persons who had health problems like Body pain, Hearing problems, Visual problems and Immobility are included in the General category.

**Table No: 1: Distribution of Respondents Having General and Chronic Health Problems.**

Problems	No of respondents	Percentage
No problems	155	38.8
General problems	139	34.8
Chronic problems	106	26.4
Total	400	100.0

It is clear from table no.1 the majority of the respondents (34.8 percent) have suffered by general problems and nearly twenty seven percent had reported they have faced from chronic problems and other remaining thirty eight percent did not have any health problems at the time of data collection among the age population in the study area.

**General and Chronic Health Problems with Background Characteristics of Respondents:-**

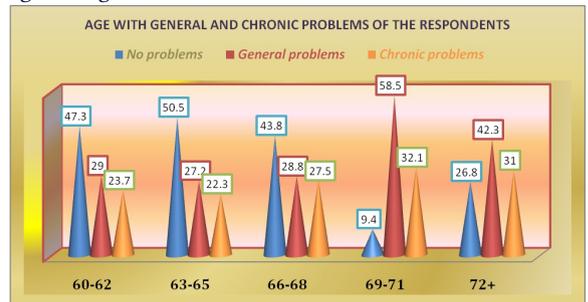
**Table No 2 Distribution of respondents by General and Chronic health problems and their background characteristics**

Background Characteristics	Health Problems			Total
	No Problem	General Problem	Chronic Problem	
<b>Age</b>				
60-62	44(47.3)	27(29.0)	22(23.7)	93(100.0)
63-65	52 (50.5)	28(27.2)	23(22.3)	103(100.0)
66-68	35(43.8)	23(28.8)	22(27.5)	100.0(80)
69-71	5(9.5)	31(58.5)	17(32.1)	53(100.0)
72+	19(26.8)	30(42.3)	22(31.0)	71(100.0)
Ls ***				
<b>Sex</b>				
Male	73(36.5)	72(36.00)	55(27.5)	200(100.0)
Female	82(41.0)	67(33.5)	51(25.5)	200(100.0)
Ls Ns				
<b>Religion</b>				
Hindu	107(37.8)	100(35.3)	76(26.9)	283(100.0)
Muslim	15(35.7)	15(35.7)	12(28.6)	42(100.0)
Christian	33(44.0)	24(32.0)	18(24.0)	75(100.0)
Ls Ns				
<b>Caste/Community</b>				
BC	47(40.2)	32(27.4)	38(32.5)	117(100.0)
MBC	24(31.6)	35(46.1)	17(22.4)	76(100.0)
SC	84(40.6)	72(34.8)	51(24.6)	207(100.0)
Ls *				
<b>Educational Attainment</b>				
Illiterate	77(35.3)	83(38.1)	58(26.6)	218(100.0)
Primary	34(37.4)	29(31.9)	28(30.8)	91(100.0)
Middle	27(54.0)	11(22.0)	12(24.0)	50(100.0)
Secondary and above	17(41.5)	16(39.0)	8(19.5)	41(100.0)
Ls Ns				
<b>Occupation</b>				
Not working	26(32.5)	38(47.5)	16(20.0)	80(100.0)
Coolie /Labourers	108(39.6)	89(32.6)	76(27.8)	273(100.0)
Others	21(44.7)	12(25.5)	14(29.8)	47(100.0)
Ls *				
<b>Personal Income</b>				
No income	25(32.5)	38(47.5)	16(20.0)	80(100.0)
<4000	100(37.6)	87(32.7)	79(29.7)	266(100.0)
4001+	29(53.7)	41(25.9)	11(20.4)	54(100.0)

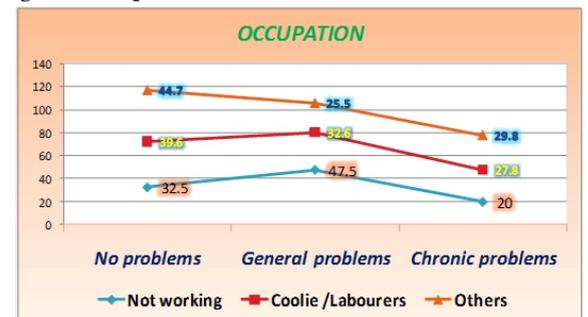
Ls *				
<b>Marital Status</b>				
Married	110(41.0)	93(34.7)	65(24.3)	268(100.0)
Widow/Widower /Divorce	45(34.1)	46(34.8)	41(31.1)	132(100.0)
Ls Ns				
<b>Total no of child</b>				
No child	12(40.0)	12(40.0)	6(20.0)	30(100.0)
1-2 children	58(38.9)	49(32.9)	42(28.2)	149(100.0)
3-4 children	69(45.4)	48(31.6)	35(23.0)	152(100.0)
4+ children	16(23.2)	30(43.5)	23(33.3)	69(100.0)
Ls *				
<b>Treated by Children</b>				
Poor	21(38.2)	10(18.2)	24(43.6)	55(100.0)
Moderate	118(39.9)	116(39.2)	62(20.9)	296(100.0)
Good	16(32.7)	13(26.5)	20(40.8)	49(100.0)
Ls ***				
<b>Opinion to stay with persons</b>				
Alone	47(30.5)	57(37.0)	50(32.5)	154(100.0)
Spouse	35(41.7)	24(28.6)	25(29.8)	84(100.0)
Children	68(45.3)	49(33.3)	30(20.4)	147(100.0)
Relatives/Friends	5(33.3)	9(60.0)	1(6.7)	15(100.0)
Ls *				
<b>Helping during illness</b>				
Spouse	71(41.5)	51(29.8)	49(28.7)	171(100.0)
Children	50(36.0)	55(39.6)	34(24.5)	139(100.0)
Relatives/Friends	34(37.8)	33(36.7)	23(25.6)	90(100.0)
Ls Ns				
<b>Total</b>	<b>155(38.8)</b>	<b>139(34.8)</b>	<b>106(26.5)</b>	<b>400(100.0)</b>

LS – Level of significance, NS – Not significance, \*\*\*-P< 0.000 Level of significance, \*\* -P< 0.01 Level of significance, \*-P< 0.05 Level of significance

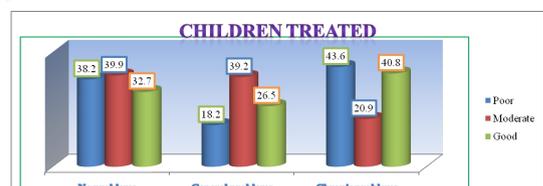
**Figure: 1 Age and Different Health Problems**



**Figure: 2 Occupation and Different Health Problems**



**Figure: 3 Treated by Children and Different Health Problems**



It is evident from table no.2 that 29 percent of respondents who belonged to 60-62 years age group had suffered by general problems and it has reached to 58.5 percent in the age 69-71 years. Nearly one fourth of respondents who are in the age 60-62 years and little more than one third in the age group 69-71 years reported that they had suffered from chronic problems. In both general and chronic problems, it was found that the age of the respondents increases the percentage of having problems also increased except minor fluctuation in the age group 63-65 and 72+ years. It may be due to the variations in sample population and also may be non identification of specific health problems among the elderly population. Chi-square value shows a significant association between age and health problems of the respondents (at 0.000% level of significance).

In this study based on male and female distribution, women have lower problems in both general and chronic than their men counterparts. Little more than one third (33.5

percent) and one fourth of (25.5 percent) women have health problems by general and chronic respectively.

With regard to religion, in both general and chronic problems the respondents who belonged to Christians have shown lower problems when compared to Hindu and Muslim respondents. In this study, community or caste groups shows respondents who belonged to BC (Backward caste) have lower in general problems than their counterparts of MBC (Most backward caste and SC Schedule caste) community. But in case of chronic problems BC community have highest percentage of problems (33 percent) than their counterparts of SC (24.6) and MBC (22.4 percent) community. Chi-square value is less significant ( $P < 0.05\%$  level of significance) with health problems of the respondents.

Related to educational attainments, respondent who have studied up to middle have lower problems in general problem than their counterparts of primary and secondary and above educational level. But in chronic morbidity, those who studied up to secondary and above have lower than the rest of the categories.

With regard to occupation elderly population who are not working have more general problems when compared to who worked as coolies (33.0 percent) or others (26.0 percent) but opposite situation has been found among the respondents who suffered from chronic problems Chi-square value shows that there was less association ( $P < 0.05\%$  level of significance) between occupation and health problems of the individuals.

Personal income is one of the important variables of health problems. In the present study nearly half of the respondents (48 percent) to those no income group have reported that they suffered from general morbidity. Respondents who had higher income ( $\text{₹}4001+$ ) have less reported for both general and chronic problems as compared to those no income and lower income Elderly persons who are widower / widow / divorce have more chronic problems than the married living with spouse. The percentages are 32 percent for those widower/ widow and 24 percent for those married with living spouse respectively.

Related to children ever born, respondents who did not have any children had lower problems in chronic when compared to having 1-2 children (28.2 percent) 3-4 children (23.0 percent) and 4+ children (33.3 percent). But this situation has found somewhat opposite among the respondents faced by general problems. Chi-square value is statistically less significant (0.05% level of significance). Questions related to treated by their children on the self reported results shows that among the poor treated nearly 44 percent of respondents have suffered from chronic problems There is a strong association between health problem and treated by their children, as the Chi-square tests suggests.

Opinion to stay with persons is less significant (0.05% level of

significance) with health problems among elderly population. Among the respondents those who prefer to stay alone have more chronic problems when compared to those who prefer with spouse/children or others. Persons who help by spouse during their illness have less problem in general than other category but in chronic, it has seen to be contrast.

**Determinant factors of health problems in rural Tamilnadu**

The effect of different demographic, social, economic and other factors, of health problems were analyzed using multinomial logistic regression model discussed in the table no. 3. The dependent variable, the health problems, among elderly population were classified into three categories, those who do not have any problem, those who have general problem and those who have chronic problem respectively. Those elderly populations who do not have any problems at present were taken as the reference category.

The independent variables selected were age of elderly population, religion, caste/ community educational attainment, occupation marital status, total no of children, treated by their children, opinion to stay with persons, helping during illness and staying with son/daughter.

**Table No: 3 Results of Multinomial Regression analysis of General and Chronic problems (with reference of No problems) by the respondents background variables.**

Background Characteristics	General {No problems (ref)}			Chronic {No Problems (ref)}		
	B	Sig.	Ex-B	B	Sig.	Ex-B
<b>Age</b>						
60-62	-.874*	.035	.417	.031	.031	.381
63-65	-.965**	.019	.381	1.200***	.007	.301
66-68	-.736*	.089	.479	-.878*	.056	.416
69-71	1.614***	.007	5.025	.988	.119	.007
72+(R)	.	.	.	.	.	.
<b>Religion</b>						
Hindu	.268	.429	1.307	.416	.258	1.517
Muslim	.377	.453	1.458	.469	.382	1.598
Christian(R)	.	.	.	.	.	.
<b>Caste</b>						
BC	-.320	.319	.726	.088	.787	1.092
MBC	.615	.083	1.849	.007	.986	1.007
SC(R)	.	.	.	.	.	.
<b>Educational Attainment</b>						
Illiterate	.085	.845	1.089	.467	.367	1.595
Primary	-.059	.903	.943	.724	.189	2.062
Middle	-1.184*	.038	.306	.292	.631	1.339
Secondary and above(R)	.	.	.	.	.	.
<b>Occupation</b>						
Not working	.602	.256	1.826	-.739	.168	.477
Coolie/Labours	.569	.199	1.767	-.009	.983	.991
Others(R)	.	.	.	.	.	.
<b>Marital Status</b>						
Married	.089	.768	1.093	-.531*	.089	.588
Widow/Widower/Divorce(R)	.	.	.	.	.	.
<b>Total no of child</b>						
No child	-.919***	.128	.399	-1.655***	.014	.191
1-2 children	-1.107	.007	.331	-.745	.082	.475
3-4 children	-1.250***	.003	.286	-1.208	.006	.299
4+ children(R)	.	.	.	.	.	.
<b>Treated by Children</b>						
Poor	-.016	.978	.984	.399	.443	1.491
Moderate	.771	.093	2.161	-.660	.125	.517
Good(R)	.	.	.	.	.	.

Opinion to stay with persons						
Alone	-.754	.274	.471	1.613	.174	5.016
Spouse	-.791	.272	.453	1.441	.230	4.225
Children	-1.117	.096	.327	.723	.539	2.060
Relatives/Friends(R)	.	.	.	.	.	.
Helping during illness						
Spouse	-.750	.048**	.472	.424	.297	1.528
Children	-.183	.620	.833	.169	.686	1.185
Relatives/Friends(R)	.	.	.	.	.	.
Staying with son or daughter						
Yes	-.087	.754	.916	-.079	.785	.924
No (R)	.	.	.	.	.	.

-2 log likelihood = 726.065 (Final)

\*\*\*P ≤ 0.001, \*\*P ≤ 0.01, \*P ≤ 0.05, \*P ≤ 0.10 Level of Significance

R = Reference Category, Ref Reference Category.

The multinomial logistic regression model identified four (4) variables were significant in the general health problems among the elderly population. The variables were age, educational attainment, total no of children and helping during illness. With respect (reference) to 72+ years, the respondents in the 60-62 age group had 0.58 times (or 58 percent) less likely to have general problems But the important thing was to be noted that, the likelihood chances of having general health problems was higher in the age group 69-71 in comparison with 72+ years old. The difference was found statistically significant. The odds ratio has little more among the respondents who belonged to MBC to compared SC community.

The summary results (logistic model) given in the table 4 depict that the respondents having up to middle are less likely to have general problems than educated up to secondary and above. The difference is found to be statistically significant. However, respondents with illiterate did not show any difference in general health problems in comparison with educated up to secondary and above.. And respondents educated up to middle in the study were less likely to had general problems when compared to educated up to secondary+ The educated up to middle were, sixty nine percent less likely to had general problems when compared to secondary+. Respondents to those having 1-2 and 3-4 child were less likely to have general problems when compared to having 4+ children. The moderate treated by their children were 1.16 times more likely general problems than good treated. And helping by spouse during illness were less likely general problems when compared to helping by relatives/friends.

The multinomial logistic regression analysis also identified two variables were significant in having chronic problems. The variables were age and total number of children. Elderly population in the age group 63-65 had 0.699 times less likely to have chronic problems when compared to 72+ age old persons. Respondents having no child have 81 percent less likely chronic problems than the persons of having child four and above.

### Conclusion

From the above findings, it can be concluded that there is much variation of health problem among elderly population in the rural area of Tamilnadu. Overall 61 percent of respondents reported that they have any one of the health problem at the time of interview. In the present study BP/Sugar was the common health problem next followed by body pain and visual problems respectively. Based on the classification of general and chronic health problems, 34 percent have suffered from general and 26.4 percent by chronic health problems. The chi-square test shows significant relationship of health problems between ages, caste, occupation, income, no of children and treated by their children. The effect of the socio-economic and demographic variables on health problems is analyzed through multinomial logistic regression technique. From the analysis we can understand that age, education, no of children and helping during illness are significant in explaining the general health problems among elderly population and age and no of

children are significant in explaining the chronic health problems. The demographic factor, age of the respondents has significant roles in both general and chronic health problems, as regression analysis suggests. Also the respondents having no child or fewer children are less likely to have general problems and chronic health problems than to those having children four and above.

### Policy Implication:

It can be suggested from the above findings:-

- The rural population should be trained up mentally and physically for caring the elderly citizens.
- Elderly people those who are not having children should be advised to stay in old age homes for better care.
- Government should take steps to give security to the old age people by means of building old age homes with better hospital facilities and good accommodation especially for the rural poor.
- From family level it must be taught by the parents to their children to care for their elders.
- The teachers also can play a role to impart better knowledge to the students for caring their elders.

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