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RESEARCH ARTICLE

ACTIVITIES OF DAILY LIVING SCORE AND SOCIODEMOGRAPHIC PROFILE AMONG ELDERLY IN RURAL AND URBAN AREAS OF LUCKNOW CITY

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Abstract

Background

This cross-sectional study interviews 400 elderly belonging to different socioeconomic and varying demographic groups of urban and rural areas of Lucknow as per predefined inclusion and exclusion criteria with their informed consent.

Introduction

The elderly in India face a multitude of psychological, social, and physical health problems. As age advances there is increased morbidity and functional loss, also presence of a variety of depressive factors and occurrence of varying life events, greatly impact on one's psychological status. As health care facilities improve in countries, the proportion of the elderly in the population and the life expectancy after birth increase accordingly. This is the trend which has been seen in both developed and developing countries.

Aim and Objectives; To determine the socio demographic profile of elderly. To determine the functional status of elderly using ADL scale.

Materials And Methods

A total of 400 elderly people were interviewed, comprising of 200 people each from the elderly living in the rural areas and 200 elderly living in the urban areas of Lucknow city.. A predesigned and pretested interview schedule was used to elicit information on socio demographic characteristics and required information. Necessary modifications were made in the schedule to overcome the difficulties encountered during pretesting. All the analysis was carried out by using SPSS 16.0 version and the results were recorded as frequencies, means \pm standard deviations and p-values. Tables and figures were used for comprehensive viewing of the results. Chi-square test was used for categorical variables. A p-value of <0.05 was taken as the criteria of significance. The study explores activities of daily living score, socio demographic profile important correlates thereof.

Results

More than one third (38.2%) of the males and 15.3% of females in rural area were in the age group of 60-64 years , in urban areas 28.2 % of males and 15.8% of females belonged to 60-64 yrs age groups. 59.6% males and 82% females in rural area belonged to Hindu community while in urban areas, 37.1% were male and 65.8% were females who belonged to hindu community. In all, 46.5% of the males and 75.4% of females were Hindu. In our study the majority (92.5%) of the elderly males and 92.5% of elderly females had the ability of self bathing .About 83.1% of elderly males and 90.9 % of elderly females had the ability of self dressing. The ability of self

dressing was significantly higher ($p < 0.001$) in elderly less than 70 yrs of age than elderly greater than 70 yrs of age .90.6% of males and 98.4% of females had the ability of toileting and the ability for toileting in rural areas are far better than urban areas. The ability of toileting is significantly higher ($p < 0.001$) in elderly <70 yrs of age than elderly > 70 yrs of age. About 89.2% of males and 95.2% of elderly females had the ability for transferring. In all about 83.1% of elderly males and 92% of elderly females had the ability of self control over urination and defecation. Rural elderly had better self control over urination and defecation. Similarly the ability of self control over urination and defecation was significantly higher ($p < 0.0001$) among the age group of 60-64 yrs (96.9%) ,65-69 yrs (93.3%) ,70-74 yrs (75.2%) , > 75 yrs (74.4%). In all 97.2% of elderly males and 99.5% of elderly females had the ability of self feeding.

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INTRODUCTION

India is a land of most rapidly ageing populations (aged 60 and above) in the developing world. This phenomenon is marked by a series of social, cultural and epidemiological implications due to the greater prevalence of morbidity and functional disability in this age group¹. Functional status is an individual's ability to live independently and to relate to their environment or to perform normal daily activities required to meet basic needs, fulfill usual roles and maintain health and well-being.

Functional status subsumes related concepts of interest: functional capacity and functional performance. While functional capacity represents an individual's maximum capacity to perform daily activities in the physical, psychological, social and spiritual domains of life, functional performance refers to the activities people actually do during the course of their daily lives². A maximal exercise test measures physical functional capacity, while a self-report of activities of daily living measures functional performance.

Functional status can be influenced by biological or physiological impairment and socio-economic factors, symptoms, mood and other factors³. It is also likely to be influenced by health perceptions. For example, a person whom most judge to be well but who views himself as ill may have a low level of functional performance in relation to his capacity. Loss of functional status is associated with increased risk of institutionalization and falls and, it was considered an independent risk factor for mortality.

Numerous studies have shown an association between aging and higher risks of functional dependence, as well as a high prevalence of functional disability or limited functional ability in the older adult population⁴. These studies highlight that the added years of life should be accompanied by quality of life and should be free from the high cost of dependence. The decline in functional status may also be associated with a number of multidimensional factors that interact to determine this status in older adults. Early detection of these factors can help prevent functional dependence in this group.

What is Activities of Daily Living (ADL)?

The term Activities of Daily Living (ADL) has been used to refer to a range of common activities whose performance is required for personal self-maintenance and independent community residence (Fillenbaum, 1988)⁵. Functional status can be defined as the ability to perform activities necessary to ensure well-being, and it can be assessed by examining the ability to carry out various activities of daily living (Heikkinen, 1998)⁶.

The ADL functional statuses with respect to eating, dressing, getting in and out of a bed or chair, using the toilet, bathing, and continence are used to measure the elderly's degree of independence in daily living (Jagger, Spiers and Clarke, 1993)⁷. If none of the six ADL activities is impaired, the individual is classified as "active"; if one or two activities are impaired, he or she is classified as "mild disabled"; "severely disabled" refers to elderly who have three or more activities impaired (Zeng, Vaupel et al.)⁸. ADLs are defined as "the things we normally do...such as feeding ourselves, bathing, dressing, grooming, work, homemaking, and leisure" (MedicineNet.com Medical Dictionary). Measurement

of activities of daily living (ADL) is an indicator of an individual's functional capacity, a reasonable proxy of health status, and a key element in attempts to measure quality of life (Katz et al., 1983)

Objectives;

1. To determine the sociodemographic profile of elderly.
2. To determine the functional status of elderly using ADL scale.

Material and Methods:

The present study was undertaken to study the sociodemographic profile and functional status of elderly using ADL score under Department of community medicine at Eras' Lucknow Medical College, Lucknow in Urban field practice areas with underlying common medical problems and diseases.

4.1 District profile

Lucknow is centrally placed district of Uttar Pradesh, spread over an area of 2528 sq kms, which constitute 0.85% of the total area of country. In 2011, the district Lucknow has a population of about 4,588,455⁹. There are 906 females per 1000 males. Main languages spoken in the district are Hindi and Urdu.

4.2 Geographical profile:

4.2.1 Location

Lucknow, the capital of Uttar Pradesh, is situated 125 meter above the mean sea level. It is situated between 26⁰30', and 27⁰10', North Latitude and 80⁰30' East Longitude. It is situated on the banks of the river Gomati, which flows from West to East. The district of Lucknow district presents the Gangetic plains of Uttar Pradesh, which physiographically falls under the 6th agro climatic zone i.e. central zone, also known as mid plain zone.

4.2.2 Climate

The climate of Lucknow district is sub-tropical. The average normal rainfall of the district is 953 mm. It receives maximum rainfall during the three months of July, August and September which accounts for 70%-75% of the total rainfall. The temperature varies from a maximum of about 45⁰ Celsius in summer to a minimum of about 5⁰ Celsius in winter season.

4.2.3 Demographic profile:

Literacy rate of Lucknow is 79.3% (Male-84.3%, Female- 73.9%) (Census 2011).

4.3 Study area: The study was conducted in the urban field practice areas of Era's Lucknow Medical College and Hospital. This consists of Villages of Kakori block & mohallas of old Lucknow.

4.4 Study unit: People of either sex , 60 yrs of age and above residing in the field practice areas of Department Of Community Medicine constitute the study unit.

4.5 Study design: It was a community based cross sectional study.

4.6 Study period: The period of study was one year from October 2011 to September 2012 which was used for the development of study tools, collection of data, analysis and presentation of findings.

4.7 Sampling:

4.7.1 Sample size: Sample size was calculated by the formula

$$n = z^2 .p .q / d^2$$

Where n = sample size

z = 1.96

p = prevalence

q = 100 – p

d = allowable error

Prevalence is taken as 52.2%¹⁰ and the value of allowable error , d comes out to be 5%

Sample size = 400 population

4.7.2 Sampling technique: Multistage random sampling techniques was used to select the study unit.

4.7.2.1 Selection of Sample: The requisite sample was reached in two stages:

First stage: Firstly the sample size of 200 was selected in Urban areas.

Second stage:

Urban Areas

A list of total no. of mohallas under Urban Health Training Center were obtained Out of the total 20 mohallas 10 were selected for study by Simple random sampling.

Third stage:

Simple random technique (using the last digit of currency) was used to select the first household for the survey. Then starting from the first household on the left side of the road all the houses, where an elderly were available, were surveyed till the desired number of elderly met from each of the 6 villages under rural health training center and each of 10 mohallas of Urban Health Training Center.

4.8 Inclusion criteria-

- Elderly residing for at least six months in the area were be considered as a resident and included in the study.
- Elderly whose native place is other than present place of residence but the duration of stay was more than six months, were included in the study

4.9 Exclusion criteria-

- Those elderly living in the area for less than six months were not included in the study.
- Those elderly, who were non cooperative or refused to provide necessary information, were not included in the study.

4.10 Tools of investigation: A predesigned and pretested interview schedule was used to elicit information on sociodemographic characteristics and required information.

4.11 Pretesting of the interview schedule: The schedule was pretested in a sample of 50 elderly, 25 each from urban and rural areas. Necessary modifications were made in the schedule to overcome the difficulties encountered during pretesting.

4.12 Definition of household:

A household is usually a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so (Census 2011).

Persons on a household may be related or unrelated or a mix of both. However, if a group of unrelated persons live in a house but do not take their meals from the common kitchen then they are not constituent of a common household. Each such person was to be treated as a separate household. Common kitchen was an important link in finding out whether it was a household or not.

4.13 Interview schedule: A structured pretested preformed interview schedule (**Annexure-I**) was used to record information.

RESULTS:

Table -1: Distribution of elderly according to age & sex by area of residence

Age group	Rural (n=200)		Urban (n=200)		Total (n=400)	
	Male (n=89) No. (%)	Female (n=111) No. (%)	Male (n=124) No. (%)	Female (n=76) No. (%)	Male (n=213) No. (%)	Female (n=187) No. (%)
60-64	34 (38.2)	17 (15.3)	35 (28.2)	12 (15.8)	69 (32.4)	29 (15.5)
65-69	26 (29.2)	54 (48.6)	39 (31.5)	31 (40.8)	65 (30.5)	85 (45.5)
70-74	18 (20.2)	35 (31.5)	31 (25.0)	29 (38.2)	49 (23.0)	64 (34.2)
>=75	11 (12.4)	5 (4.5)	19 (15.3)	4 (5.3)	30 (14.1)	9 (4.8)

Table-5.1 Shows that more than one third (38.2%) of the males and 15.3% of females in rural area were in the age group of 60-64 years , in urban areas 28.2 % of males and 15.8% of females belonged to 60-64 yrs age groups .

29.2% of males and 48.6% of females in rural areas belonged to age group 65-69 years, in urban areas 31.5% of males and 40.8% of females were of the age group of 65-69 yrs.

About one fifth (20.2%) of the males and 31.5% of females of rural areas were in the age group of 70-74 years, in urban areas 25.0% of males and 38.2% of females were in the age group 70-74 yrs.

Only 12.4% of the male and 4.5% of females in rural areas were >=75 years ,in urban areas 15.3% of males and 5.3% of females were >=75 yrs.

In total, 32.4% of the males and 15.5% of females were in the age group of 60-64 years. However, 30.5% of the males and 45.5% of females belonged to 65-69 years About one fifth (23%) of the males and 34.2% of females were in the age group of 70-74 years. Only 14.1% of males and 4.8% of females were >=75 years.

Table -2: Distribution of elderly according to socio-demographic characteristics by area of residence

Socio-demographic	Rural (n=200)		Urban (n=200)		Total (n=400)	
	Male (n=89) No. (%)	Female (n=111) No. (%)	Male (n=124) No. (%)	Female (n=76) No. (%)	Male (n=213) No. (%)	Female (n=187) No. (%)
Religion						
Hindu	53 (59.6)	91(82.0)	46 (37.1)	50 (65.8)	99 (46.5)	141 (75.4)
Muslim	36 (40.4)	20 (18.0)	78 (62.9)	26 (34.2)	114 (53.5)	46 (24.6)
Caste						
SC/ST	5 (5.6)	3 (2.7)	2 (1.6)	0 (0.0)	7 (3.3)	3 (1.8)
OBC	70 (78.7)	103 (92.8)	83 (66.9)	67 (88.2)	153 (71.8)	170 (90.9)
General	14 (15.7)	5 (4.5)	39 (31.5)	9 (11.8)	53 (24.9)	14 (7.5)
Education						
Illiterate	70 (78.7)	106 (95.5)	101 (81.5)	72 (94.7)	171 (80.3)	178 (95.2)
Just literate	5 (5.6)	4 (3.6)	4 (3.2)	1 (1.3)	9 (4.2)	5 (2.7)
Primary-junior high school	5 (5.6)	0 (0.0)	3 (2.4)	0 (0.0)	8 (3.8)	0 (0.0)
High school- Intermediate	8 (9.0)	1 (0.9)	8 (6.5)	0 (0.0)	16 (7.5)	1 (0.5)
Graduate+	1 (1.1)	0 (0.0)	8 (6.5)	3 (3.9)	9 (4.2)	3 (1.6)
Occupation						
Unemployed	35 (39.3)	98	83	67	118	165

		(88.3)	(66.9)	(88.2)	(55.4)	(88.2)
Unskilled	10 (11.2)	6 (5.4)	6 (4.8)	1 (1.3)	16 (7.5)	7 (3.7)
Semi-skilled	10 (11.2)	2 (1.8)	8 (6.5)	1 (1.3)	18 (8.5)	3 (1.6)
Skilled	0 (0.0)	0 (0.0)	3 (2.4)	0 (0.0)	3 (1.4)	0 (0.0)
Clerical/Shop owner	9 (10.1)	1 (0.9)	10 (8.1)	1 (1.3)	19 (8.9)	2 (1.1)
Farmer	23 (25.8)	4 (3.6)	9 (7.3)	4 (5.3)	32 (15.0)	0 (0.0)
Semi-professional	2 (2.2)	0 (0.0)	3 (2.4)	0 (0.0)	5 (2.3)	8 (4.3)
Professional	0 (0.0)	0 (0.0)	2 (1.6)	2 (2.6)	2 (0.9)	2 (1.1)

Table-2. Shows that 59.6% males and 82% females in rural area belonged to Hindu community while in urban areas, 37.1% were male and 65.8% were females. In all, 46.5% of the males and 75.4% of females were Hindu.

Majority of the males (78.7%) and females (92.8%) in rural areas belonged to OBC category while in urban area, 66.9% males and 88.2% females were of OBC category. In all, 71.8% of the males and 90.9% of the females belonged to OBC category.

Most of the males (78.7%) and females (95.5%) in rural areas were illiterate. Similarly, 81.5% of the males and 94.7% of the females of the urban areas were illiterate. In all, 80.3% of the males and 95.2% of the females were illiterate.

Most of the males (Rural=39.3%, Urban=66.9%) and females (Rural=88.3%, Urban=88.2%) of both rural and urban were unemployed. In all, 55.4% of the males and 88.2% of the females were unemployed.

Table -3: Distribution of elderly according to socio-economic status by area of residence

Socio-economic status	Rural (n=200)		Urban (n=200)		Total (n=400)	
	Male (n=89) No. (%)	Female (n=111) No. (%)	Male (n=124) No. (%)	Female (n=76) No. (%)	Male (n=213) No. (%)	Female (n=187) No. (%)
I	2 (2.2)	1 (0.9)	1 (0.8)	3 (3.9)	3 (1.4)	4 (2.1)
II	6 (6.7)	9 (8.1)	6 (4.8)	9 (11.8)	12 (5.6)	18 (9.6)
III	6 (6.7)	12 (10.8)	20 (16.1)	15 (19.7)	26 (12.2)	27 (14.4)
IV	18 (20.2)	11 (9.9)	19 (15.3)	6 (7.9)	37 (17.4)	17 (9.1)
V	57 (64.0)	78 (70.3)	78 (62.9)	43 (56.6)	135 (63.4)	121 (64.7)

Table-3 Shows that more than half of the males (64.0%) and females (70.3%) in rural areas belonged to SES V. Similarly, 62.9% of the males and 56.6% of females in urban areas belonged to SES V. In all, 63.4% males and 64.7% females belonged to SES V. About 20% of males and females of both rural and urban areas belonged to SES I, II, III and IV

Table -4: Distribution of elderly according to housing characteristics by area of residence

Housing characteristics	Rural (n=200)		Urban (n=200)		Total (n=400)	
	Male (n=89) No. (%)	Female (n=111) No. (%)	Male (n=124) No. (%)	Female (n=76) No. (%)	Male (n=213) No. (%)	Female (n=187) No. (%)
Type of house						
Kachha	29 (32.6)	53 (47.7)	13 (10.5)	28 (36.8)	42 (19.7)	81 (43.3)
Semi-pucca	18 (20.2)	22 (19.8)	9 (7.3)	13 (17.1)	27 (12.7)	35 (18.7)
Pucca	42 (47.2)	36 (32.4)	102 (82.3)	35 (46.1)	144 (67.6)	71 (38.0)
Overcrowding						

Present	55 (61.8)	53 (47.7)	67 (54.0)	39 (51.3)	122 (57.3)	92 (49.2)
Absent	34 (38.2)	58 (52.3)	57 (46.0)	37 (48.7)	91 (42.7)	95 (50.8)
Ventilation						
Present	15 (16.9)	16 (14.4)	40 (32.3)	19 (25.0)	55 (25.8)	35 (18.7)
Absent	74 (83.1)	95 (85.6)	84 (67.7)	57 (75.0)	158 (74.2)	152 (81.3)
Lighting						
Adequate	59 (66.3)	88 (79.3)	85 (68.5)	48 (63.2)	144 (67.6)	136 (72.7)
Inadequate	30 (33.7)	23 (20.7)	39 (31.5)	28 (36.8)	69 (32.4)	51 (27.3)

Table-4 Shows that about one third (32.6%) of males and 47.7% of females in rural areas were living in Kaccha houses. However, 10.5% of males and 36.8% of females in urban areas were living in Kaccha houses. More than one third (47.2%) of the males and 32.4% of females in rural areas were living in Pucca houses. Similarly, 82.3% of the males and 46.1% of females were living in Pucca houses. In all, 67.6% males and 38% females were living in Pucca houses followed by Kachha (Male-19.7%, Female=43.3%) and semi-pucca (Male-12.7%, Female-18.7%).

The overcrowding in the house was present in 61.8% male elderly families and 47.7% in female elderly families in rural areas. Similar observation was found for male and female in urban areas. In all, overcrowding was present in 57.3% male elderly families and 49.2% of female elderly families.

The ventilation in the house was present only in 16.9% of male and 14.4% of female families in rural areas. However, the ventilation was present in 32.3% of male and 25% of female families in urban areas. In all, the ventilation in the house was present in 25.8% of male elderly and 18.7% of female elderly families.

In most of the male (Rural=66.3%, Urban=68.5%) and female (Rural=79.3%, Urban=63.2%) elderly families of both rural and urban areas, the lighting was adequate. In all, the lighting was adequate in 67.6% of male and 72.7% of females families.

Table -5: Distribution of elderly according to KATZ activities of daily living by area of residence

KATz activities of daily living#	Rural (n=200)		Urban (n=200)		Total (n=400)	
	Male (n=89) No. (%)	Female No. (%) (n=111)	Male (n=124) No. (%)	Female (n=76) No. (%)	Male (n=213) No. (%)	Female (n=187) No. (%)
Ability of self bathing	86 (96.6)	105 (94.6)	111 (89.5)	68 (89.5)	197 (92.5)	173 (92.5)
Ability of self dressing	84 (94.4)	104 (93.7)	93 (75)	66 (86.8)	177 (83.1)	170 (90.9)
Ability of toileting	89 (100)	111 (100)	104 (83.9)	73 (96.1)	193 (90.6)	184 (98.4)
Ability for transferring	83 (93.3)	108 (97.3)	107 (86.3)	70 (92.1)	190 (89.2)	178 (95.2)
Ability of self control over urination and defecation	83 (93.3)	107 (96.4)	94 (75.8)	65 (85.5)	177 (83.1)	172 (92)
Ability for self feeding	86 (96.6)	111 (100)	121 (97.6)	75 (98.7)	207 (97.2)	186 (99.5)

#Multiple response

Table-5 Shows majority of the males (96.6%) and females (94.6%) in the rural area and 89.55% of males and 92.55% of females in urban areas had the ability of self bathing. Similarly, majority of the males and females in both rural and urban area had ability of self dressing, toileting, transferring, self control over urination & defecation and self feeding.

Table-6: ADL score amongst elderly by area of residence

ADL score	Rural (n=200)		Urban (n=200)	
	No.	%	No.	%
3	1	0.5	0	0
4	3	1.5	1	0.5

5	11	5.5	8	4
6	185	92.5	191	95.5

Table 6 Shows that 7.5% of elderly in rural areas and 4.5% of elderly in urban areas had decreased activities of daily living scores. 92.5% of rural elderly and 95.5% of urban elderly had score 6 in Katz ADL scoring.

Discussions:

In this study about 38.2% of the males and 15.3% of females in rural area were in the age group of 60-64 years and 28.2% of males and 15.8% of females in urban areas were in the age group of 60-64 yrs. However, 29.2% of males and 48.6% of females in rural areas were in the age group of 65-69 years and 40.8% of males and 31.5% of females in urban areas were in age group 65-69 yrs. One fifth (20.2%) of the males and 31.5% of females in the rural areas were in the age group of 70-74 years. Only 12.4% of the males and 4.5% of females in rural areas were ≥ 75 years. In our study most of the elderly belonged to age group of 65-69 yrs and this corresponds with the findings reported by **Singh et al(2005)**¹¹. In contrast in other study by **Gupta et al(2002)**¹² in Madhya Pradesh 65-69 yrs age group consisted of least no.(11%) of elderly individuals and the largest group comprised of 60-64 (42.9%) yrs. age group

59.6% of males and 82% of females belonged to Hindu community. 40.4% of males and 18.0% of females belonged to muslim community in rural areas. While in urban areas 37.1% of males and 65.8% of females belonged to hindu community and 62.9% of males and 34.2% of females belonged to the muslim community. In all, 46.5% of the males and 75.4% of females were Hindu. As per **NFHS-3**¹³, 82.6% of households in Uttar Pradesh were Hindus and 16.3% Muslims. In other study by **Srinivasan et al(2005)**¹⁴ observed hindus constituted 76.7% of elderly population. So our study findings are comparable with **NFHS-3**¹³ findings and Srinivasan study^{104,55}.

In our study majority of the males (78.7%) and females (92.8%) of the rural areas belonged to OBC category. 66.9% of males and 88.2% of females of urban areas belonged to OBC category. In all, 71.8% of the males and 90.9% of the females were in OBC category.

64.0% of males and 70.3% females of the rural areas belonged to SES V. Similarly, 62.9% of males and 56.6% of females of urban areas belonged SES V. In all, 63.4% males and 64.7% females belonged to SES V. About 20% of males and females of both rural and urban areas belonged to SES I, II, III and IV. In other study by **Prakash et al(2004)**¹⁵ majority of elderly were in the socioeconomic group V and this is comparable to our study. However, **NFHS-3 (UP)**¹³ reported that 27.8% of the population belonged to social class V. The reason behind higher percentage of the population belonged to social class V is because the catchment area of the urban and rural health training centre belongs to low socio-economic group in our study.

In our study the majority (92.5%) of the elderly males and 92.5% of elderly females had the ability of self bathing. About 83.1% of elderly males and 90.9% of elderly females had the ability of self dressing. The ability of self dressing was significantly higher ($p < 0.001$) in elderly less than 70 yrs of age than elderly greater than 70 yrs of age. 90.6% of males and 98.4% of females had the ability of toileting and the ability for toileting in rural areas are far better than urban areas. The ability of toileting is significantly higher ($p < 0.001$) in elderly < 70 yrs of age than elderly > 70 yrs of age. About 89.2% of males and 95.2% of elderly females had the ability for transferring. In all about 83.1% of elderly males and 92% of elderly females had the ability of self control over urination and defecation. Rural elderly had better self control over urination and defecation. Similarly the ability of self control over urination and defecation was significantly higher ($p < 0.0001$) among the age group of 60-64 yrs (96.9%), 65-69 yrs (93.3%), 70-74 yrs (75.2%), > 75 yrs (74.4%). In all 97.2% of elderly males and 99.5% of elderly females had the ability of self feeding.

In a study conducted by **Suwarna et al (2005)**¹⁷ reported that majority of the elderly were independent (93.89%). **Alan et al (1993)**¹⁸ analysed ADL among the elderly and found dependence for bathing in 2%, dressing & transfer 1%. In other study by **Tiwari et al (2007)**¹⁹ had observed that less than 7.2% of elderly had decreased activities of daily living scores. A WHO study also found that who need help in coping with simple tasks such as feeding, transfer, going to toilet was below 10%. The ADL findings of WHO study is similar to our study findings as greater than 90% of elderly had the ability of bathing, dressing, transferring and toileting.

RECOMMENDATIONS:

There is a need to effectively develop geriatrics health care services and if geriatric health care facility exists proper monitoring and evaluation of these services are needed. There is also a need for proper regular health check up of elderly in both urban and rural areas. There should be a proper support from all sections of the society towards elderly. The psychosocial problems of the elderly must be looked into. There is also a need to implement government legislation and laws for elderly. The community should be encouraged to let elderly participate in different activities. The health care providers should be properly trained in the care of the elderly. More qualitative research is needed in India to assess morbidity amongst elderly in India. Health care services for elderly needs to be fully integrated with primary health care services. They should be given periodic free medical check up.

REFERENCES:

1. Bank, S.P. (1995). Before the last leaves fall: Sibling connections among the elderly. *Journal of Geriatric Psychiatry*, 28, 183-195.
2. Beland, F., Zunzunegui, M.V. (1999). Predictors of functional status in older people living at home. *Age and Ageing*, 28, 153-159.
3. Biswas, S.K. *Ageing in Contemporary India*. 8th Indian Anthropological Society Occasional Papers.
4. Chan, K.M., Pang, W.S., Ee, C.H., Ding, Y.Y., Choo P. (1999). Functional Status of the Elderly in Singapore. *Singapore Medical Journal*, 40 (10).
5. Fillenbaum, G.G. (1988). Activities of daily living. *The Encyclopedia of Ageing*, 2,7-9.
6. Heikkinen, R. L., (1998). The role of physical activity in healthy ageing. *World Health Organization- Ageing and Health*.
7. Jagger, C., Spiers, N.A., Clarke, M. (1993). Factors associated with decline in function, institutionalization and mortality in the elderly. *Age and Ageing*, 22, 190-197.
8. Zeng, Y., Vaupel, J.W., Xiao, Zhenyu., Zhang, C., Liu, Y. (2002). Sociodemographic and Health Profiles of the Oldest Old in China. *Population and development review*, 28 (2), 251-273.
9. Census of India, 2011: <www.censusindia.net>. Central Statistical Organisation, 2000. *Elderly in India: profile and programmes*. Ministry of Statistics and Programme Implementation, New Delhi, Government of India.
10. Baldev R and Prasad B G. Prevalence of diseases among the geriatric population. *Geriatrics*. 1970; 25: 142-158.
11. N Singh et al(2005)., "The Psycho-social Profile of the Elderly People in Urban Area of Meerut City" *Journal of The Indian Academy of Geriatrics*, 2009; 5 : 165-170.
12. Gupta sanjay et al., " The investigation of medical and psychosocial problems of geriatric population in the urban area of Madhya Pradesh in india". *Open Journal of Internal Medicine*, 2012, vol 2, pp 170-175
13. National Family Health Survey 2005-2006 (NFHS-3). Mumbai: International Institute of Population Science; 2007.

14. Srinivasan krishnamachari et al., “Prevalence Of Health related Disability among community dwelling urban elderly from middle socioeconomic strata in Bangaluru,India”.Indian J Med Res 131, April 2010, pp 515-521.
 15. Prakash rahul et al., “A study Of morbidity pattern among geriatrics population in an urban area of Udaipur, Rajasthan”,Indian Journal Of Community Health,2004,vol 29,no.1,jan-mar.,2004.
 16. National Family Health Survey 2005-2006 (NFHS-3). Mumbai: International Institute of Population Science; 2007.
 17. Suwarna madhukumar et al., “An epidemiological study in elderly and its morbidity in urban slum population in Miraj district, Maharashtra”. International Journal of Public Health and Human Rights ,Volume 1, Issue 1, 2011, pp-05-10.
 18. Allen SM, et al. Measurement of need for assistance with daily activities: quantifying the influence of gender roles. J Gerontol 1993;48(4):S204-S211.
- Tiwari et al (2007)., “ Prevalence of Health Problems Among elderly: a study in a Rural population of varanasi”