

Health Problem Pattern Among Geriatrics In Aligarh- A Cross Sectional Study

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Abstract: Background & Objectives: Old age is associated with decline in physical, physiological & cognitive function affecting the quality of life of the elderly population. The robust increase in proportion of elderly has resulted in demographic burden in a developing country like India. To cope up with this burden appropriate & timely intervention is required based on the situational analysis of the health problems faced by the aged population. Objective is to determine the pattern of health problems among geriatric population and to find out the rural- urban difference in health problems, if any. Methodology: The cross- sectional study was done among 450 individuals aged 60 years & above residing at field practice area of Urban Health Training Centre & Rural Health Training Centre, JN Medical College, AMU, Aligarh. The data was obtained through pretested & predesigned questionnaire by selecting individuals using systematic random sampling with PPS. Data was entered & analyzed by SPSS 20. Tests of proportion & Chi square test were applied. P value <0.05 was considered significant. Results: The present study revealed that the most prevalent problem was cataract (79.6%), followed by depression (36.2%), refractive error (31.3%), locomotor problems (23.6%) and hearing loss (16%). No significant rural- urban difference was found among the prevalence of health problems. Conclusion: The study concluded that the magnitude of health problems faced by elderly ranges from low (hearing loss) to high (cataract) that warrants strengthening of the available health care services to tackle the burden of health problems. [Maroof M NJIRM 2016; 7(2):61-65]

Key Words: Geriatric, Health Problems, Pattern.

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Introduction: Elderly population (60+) has increased from 6.0% to 8.3% (1991- 2013) in India with the females having higher proportion than males in this age group¹. Population aging generates many challenges and sparks concerns about the pace of future economic growth, the operation and financial integrity of healthcare and pension systems, and the well-being of the elderly². Aging along with its associated factors such as income loss, social isolation, dependence results in mental problems like anxiety, depression, etc. Aging also causes visual and hearing impairment. The physiological changes along with decreased immunity also makes them vulnerable to communicable and non- communicable diseases³.

Therefore, this study was planned to understand the pattern of health problems prevalent in this area so that, appropriate and timely interventions can be taken to promote healthy aging.

Material and Methods: This cross- sectional study was a part of large community based cross- sectional study done among 450 individuals aged 60 years & above residing at field practice area of Urban Health Training Centre & Rural Health Training Centre, JN Medical College, AMU, Aligarh from July 2013 to June 2014 using systematic random sampling with PPS.

Socio- demographic information was collected through pretested & predesigned questionnaire. Torch light examination of eye & 6/9 illiterate E chart was used for testing opacity of lens and visual acuity respectively. Tuning fork (512 Hz) was used for detecting hearing loss. Locomotor problems were measured by NSSO, 2002 criteria⁴. GDS- 15 was used for assessment of depression⁵⁻⁷.

Pilot study was done & the sample size was calculated using the least prevalent problem (hearing loss- 15%) among the health problems under study viz. cataract, refractive error, hearing loss, locomotor problem, depression by formula $n = 4pq/l2$ ($p = 15\%$, $l = 5\%$, non-response = 10%). Equal sample of 225 was taken from both registered areas of RHTC and UHTC. Ethical clearance was obtained from institutional ethics committee. Data was entered & analyzed using SPSS 20. Tests of proportion & Chi square test were applied. P value <0.05 was considered significant.

Results:

Health problems among the aged population

It was found that among the health problems studied the prevalence of cataract was highest among the aged population (79.6%) followed by depression (36.2%), refractive error (31.3%), locomotor problems (23.6%) & hearing loss (16%).

Relationship of health problems with area of residence

The distribution of health problems with area of residence i.e. if there exists any significant rural- urban difference in the prevalence of health problems under study is described below-

Table 1: Distribution of cataract according to area of residence

Area of residence	Cataract					
	Present		Absent		Total	
	N	%	N	%	N	%
Rural	182	80.9	43	19.1	225	100
Urban	176	78.2	49	21.8	225	100
Total	358	79.6	92	20.4	450	100
$\chi^2 = 0.492, df = 1, p = 0.483$						

Table – 1 depicts the distribution of cataract according to area of residence. It was observed that the prevalence of cataract was almost similar in magnitude in both rural area (80.9%) and urban area (78.2%) with overall prevalence of cataract to be 79.6%.

Table 2: Distribution of depression according to area of residence

Area of residence	Depression					
	Present		Absent		Total	
	N	%	N	%	N	%
Rural	83	36.9	142	63.1	225	100
Urban	80	35.6	145	64.4	225	100
Total	163	36.2	287	63.8	450	100
$\chi^2 = 0.087, df = 1, p = 0.769$						

Table – 2 depicts the distribution of depression according to area of residence. It was seen that the prevalence of depression was 36.2% with almost equivalent distribution in rural area (36.9%) and urban area (35.6%) i.e. no statistically significant rural- urban difference was observed.

Table 3: Distribution of refractory error according to area of residence

Area of residence	Refractory error					
	Present		Absent		Total	
	N	%	N	%	N	%
Rural	79	35.1	146	64.9	225	100
Urban	62	27.6	163	72.4	225	100
Total	141	31.3	309	68.7	450	100

$\chi^2 = 2.985, df = 1, p = 0.084$

Table – 3 depicts the distribution of refractory error according to area of residence. It was found that the prevalence of refractory error was higher in rural area (35.1%) as compared to urban area (27.6%) with overall prevalence of 31.3% but the rural- urban difference in the prevalence of refractive error was not found to be statistically significant.

Table 4: Distribution of locomotor problems according to area of residence

Area of residence	Locomotor problems					
	Present		Absent		Total	
	N	%	N	%	N	%
Rural	58	25.8	167	74.2	225	100
Urban	48	21.3	177	78.7	225	100
Total	106	23.6	344	76.4	450	100
$\chi^2 = 1.234, df = 1, p = 0.267$						

Table – 4 depicts the distribution of locomotor problems according to area of residence. It was observed that the prevalence of locomotor problems was 23.6% with almost equal magnitude in rural area (25.8%) and urban area (21.3%).

Table 5: Distribution of hearing loss according to area of residence

Area of residence	Hearing loss					
	Present		Absent		Total	
	N	%	N	%	N	%
Rural	41	18.2	184	81.8	225	100
Urban	31	13.8	194	86.2	225	100
Total	72	16	378	84	450	100
$\chi^2 = 1.653, df = 1, p = 0.198$						

Table – 5 depicts the distribution of hearing loss according to area of residence. It was found that the prevalence of hearing loss was slightly higher in rural area (18.2%) than urban area (13.8%) and the rural-urban difference was not found to be statistically significant.

Discussion: The present study showed that the prevalence of cataract was highest (79.6%), which was followed by depression (36.2%), refractive error (31.3%), locomotor problems (23.6%) and hearing loss (16%). No statistically significant rural- urban

difference was observed in the prevalence of health problems.

In a study carried out by Makwana et al (2012) in Gujarat it was observed that most commonly complaint of elderly persons was difficulty in vision, followed by depressive feeling, hearing difficulty whereas common diseases in order of their magnitude were arthritis, followed by cataract, chronic bronchitis etc. The prevalence of cataract, depressive feelings was significantly higher in the urban area as compared to the rural area whereas the prevalence of hearing defect was significantly higher in rural area than the urban area³.

The study carried out in Chandigarh by Swami et al (2002) showed that most common diseases in order of the magnitude were hypertension, osteoarthritis, cataract, gastritis, deafness and diabetes mellitus/hyperglycaemia. The prevalence of cataract, osteoarthritis was not found to be significantly related to the area of residence whereas the prevalence of deafness was found to be significantly higher in urban area⁸.

Sharma et al (2013) in their study found that the most frequent health problem was musculoskeletal problem followed by hypertension, cataract and dental problems, anaemia etc. The prevalence of senile deafness, musculoskeletal problem was not found to be significantly related to the area of residence⁹.

The study conducted by Joshi et al (2003) in Chandigarh revealed that among the elderly population the most prevalent morbidity was anaemia, followed by dental problems, hypertension, chronic obstructive airway disease (COAD), cataract, and osteoarthritis, symptoms wise depression was the most frequent followed by visual impairment, chronic cough with difficulty in breathing, joint pains, tremors, paraesthesia, decreased hearing etc. Univariate analysis shows significant relation of morbidities with area of residence but in multivariate analysis no such statistical difference exists. The prevalence of cataract was reported to be significantly higher in rural area whereas no statistically significant rural-urban difference was seen in the prevalence of senile deafness & arthritis¹⁰.

Thakur et al (2013) in their study showed that the prevalence of visual impairment was highest followed by hearing impairment, depression, anaemia, arthritis

etc. No statistically significant rural urban difference was reported in the prevalence of visual impairment, hearing impairment, hypertension, cataract whereas statistically significant difference was reported in depression (urban > rural), arthritis (rural > urban), anemia (rural > urban), diabetes (urban > rural)¹¹.

The study done by Haq et al (2009) in Aligarh found that no statistically significant rural urban difference was present in the prevalence of refractory error & cataract¹².

Sharma et al (2008) in their study done in Chandigarh found that elderly residing in urban area had significant higher cataract prevalence than the elderly living in rural area¹³.

The prevalence of hypertension was highest followed by musculoskeletal problems, cataract, respiratory problems etc. as shown by Medhi et al (2006) in their study carried out in Assam. The prevalence of musculoskeletal problems was significantly higher in tea garden than the urban area whereas no statistical significant difference was observed in other morbidities in relation to area of residence¹⁴.

The study carried out by Chong et al (2001) in South Taiwan revealed that the prevalence of depression was higher in urban area than the semi-urban & the rural area. This difference in prevalence was statistically significant¹⁵.

Al-Shammari and Al-Subaie (1999) in their study from Saudi Arabia showed that the prevalence of depression was higher in rural than the remote & urban area. The difference in prevalence was significantly related to area of residence¹⁶.

Javadpour and Mehri (2013) in a hospital based study in Iran reported that no significant rural urban difference exists in the prevalence of depressive symptoms¹⁷.

In a hospital based cross-sectional study carried out in Chandigarh by Gupta et al (2010) it was observed that the prevalence of depression was not significantly related to the area of residence¹⁸.

Conclusion: The study concluded that the magnitude of health problems faced by elderly ranges from low (hearing loss) to high (cataract). The magnitude of

health problems was similar in both rural and urban area. This shows that there is need to strengthen the available health care services to tackle the burden of health problems.

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