Research Article

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Health problems among the aged: a community based study from urban Aligarh, Uttar Pradesh, India

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ABSTRACT

Background: 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. The objective was to study the prevalence of health problems among elderly population and to find out the relationship of health problems with gender.

Methods: This community based observational cross- sectional study was done among 225 individuals aged 60 years & above residing at field practice area of Urban 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 & analysed by SPSS 20. Test of proportions & Chi square test were applied. P value <0.05 was taken as significant.

Results: The present study revealed that the most prevalent problem was cataract (78.2%), followed by depression (35.6%), refractive error (27.6%), locomotor problem (21.3%) and hearing loss (13.8%). The prevalence of hearing loss was significantly related to gender.

Conclusions: The study shows that elderly suffers from various physical and mental health problems which shows the need of comprehensive health service to address these problems.

Keywords: Aged, Health problems, Urban

INTRODUCTION

The decline in physical, physiological & cognitive function related to old age affects the social & economic productivity of the elderly population therefore, decreasing the overall quality of life. The percentage of elderly population (60+) has gone up from 6.0 to 8.3 percent from 1991 to 2013; the proportion of females as compared to males are higher in the elderly population. The increase in proportion of elderly population has significantly contributed to demographic burden in a developing country like India. As the elderly population is vulnerable to various age related as well as other

communicable and non-communicable diseases, this poses the additional burden on the health system. The different studies done on the elderly population shows that elderly suffers from various health problems like Prakash, et al in their study showed that health problems of the elderly population were mainly visual problems (cataract & others), hypertension, psychosocial problems, respiratory problems, etc.² The study done by Pandve & Deshmukh revealed that elderly mainly suffered from cataract, osteoarthritis, hypertension, etc.³ The study conducted by Jain et al showed that the common morbidity among elderly population were arthritis, impaired hearing, diminution of vision etc.⁴

However, no studies pertaining to the health problems faced by the elderly in Aligarh area is present. Therefore, study was planned to identify the major health problems faced by the elderly so as to build up a comprehensive plan at primary level for prevention of health problems & timely intervention at appropriate level that focuses on the vulnerable old age population to help them achieve a better quality of life.

Objectives

- To study the prevalence of health problems among elderly population.
- 2. To find out the relationship of health problems with gender.

METHODS

This observational community based cross-sectional study was a part of large study done among 225 individuals aged 60 years & above residing at field practice area of Urban 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. Hearing loss was detected by using tuning fork (512 Hz). Locomotor problems were measured according to criteria used by NSSO, 2002. Geriatric depression scale (GDS-15) hindi version was used for assessment of depression.

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%). Ethical clearance was obtained from institutional ethics committee. Data was entered & analyzed using SPSS 20. A test of proportion & Chi square test was applied. P value <0.05 was considered significant.

RESULTS

Health problems among the aged population

The present community based cross-sectional study showed that cataract was having highest prevalence among the aged population (78.2%) followed by depression (35.6%), refractive error (27.6%), locomotor problems (21.3%) & hearing loss (13.8%) (Figure 1).

Relationship of health problems with gender

The study revealed that the prevalence of cataract was slightly higher in males (80.5%) as compared to the

females (76.8%); the difference was not statistically significant (Table 1).

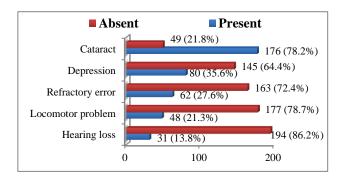


Figure 1: Health problems among the aged population.

Table 1: Distribution of cataract according to gender.

	Cataract							
Gender	Present		Absent		Total			
	N	%	N	%	N	%		
Male	70	80.5	17	19.5	87	100		
Female	106	76.8	32	23.2	138	100		
Total	176	78.2	49	21.8	225	100		
$\chi 2 = 0.417$, df =1, p= 0.518								

In the present study it was seen that the males had higher prevalence of depression (37.9%) than the females (34.1%), although no statistically significant relationship was observed (Table 2).

Table 2: Distribution of depression according to gender.

	Depression						
Gender	Present		Absent		Total		
	N	%	N	%	N	%	
Male	33	37.9	54	62.1	87	100	
Female	47	34.1	91	65.9	138	100	
Total	80	35.6	145	64.4	225	100	
χ 2 = 0.349, df =1, p= 0.554							

Table 3: Distribution of refractory error according to gender.

	Refractory error						
Gender	Present		Absent		Total		
	N	%	N	%	N	%	
Male	21	24.1	66	75.9	87	100	
Female	41	29.7	97	70.3	138	100	
Total	62	27.6	163	72.4	225	100	
χ 2 = 0.830, df = 1, p= 0.362							

The current study showed that the prevalence of refractory error was higher in females (29.7%) as compared to males (24.1%), no statistically significant gender difference was seen (Table 3).

On comparison of locomotor problems across gender it was found that the locomotor problems was more prevalent in females (23.2%) as compared to males (18.4%), the difference in prevalence was not statistically significant (Table 4).

Table 4: Distribution of locomotor problems according to gender.

	Locomotor problems							
Gender	Present		Absent		Total			
	N	%	N	%	N	%		
Male	16	18.4	71	81.6	87	100		
Female	32	23.2	106	76.8	138	100		
Total	48	21.3	177	78.7	225	100		
χ 2 = 0.732, df = 1, p= 0.392								

The above also showed that the prevalence of hearing loss was significantly higher in females (18.1%) as compared to males (6.9%) (Table 5).

Table 5: Distribution of hearing loss according to gender.

	Hea	ring loss					
Gender	Present		Abser	Absent			
	N	%	N	%	N	%	
Male	6	6.9	81	93.1	87	100	
Female	25	18.1	113	81.9	138	100	
Total	31	13.8	194	86.2	225	100	
$\chi 2 = 5.654$, df = 1, p= 0.017							

DISCUSSION

The present study was a part of large community based cross- sectional study done in field practice area of Urban Health Training Centre, JN Medical College, AMU, Aligarh. It was observed that the prevalence of cataract was highest (78.2%), followed by depression (35.6%), refractive error (27.6%), locomotor problem (21.3%) and hearing loss (13.8%). Females had significantly higher prevalence of hearing loss as compared to males whereas no significant relationship with gender was observed with cataract, depression, refractive error and locomotor problems.

Similar to our study visual problems has been reported as the most common health problem in the study done by Prakash et al, in urban Udaipur.² Cataract was observed to be the most common morbidity in the study conducted in urban slums of Pune by Pandve & Deshmukh.³ The study carried out by Murarkar et al, in old age homes of urban Pune found that cataract was the most common morbidity among the elderly population.⁹ In a study done in urban Mysore by Shraddha, et al, showed that the prevalence of visual morbidity was highest among the elderly population.¹⁰ However, other studies shows different health problem as the most common morbidity such as; the study done by Sharma et al, in urban

Chandigarh showed that anaemia was the most common morbidity among study population followed by cataract, hypertension, osteoarthritis, overweight etc. 11 The prevalence of joint problems was found to be the most common followed by dental problems, obesity, cataract, heart problems, diabetes, hearing problems etc.in a study done by Kumar et al, in urban Allahabad. 12 Chandwani, et al, in their study carried out in urban Gujarat highlighted that the most common health problems of the elderly were hypertension, arthritis, diabetes, or constipation.¹³ The most common morbidity among inmates of old age homes as shown by the study done in urban Nagpur by Dawale et al, was anaemia followed by arthritis, hypertension, cataract, acid peptic disease etc.¹⁴ The study conducted in slums of urban Surat by Jain, et al, showed that the common morbidity among study population was arthritis followed by impaired hearing, diminution of vision etc.4 The study carried out by Srinivasan, et al, in urban Bengaluru reported that most common medical illness suffered by elderly population was hypertension, followed by diabetes, arthritis, coronary artery disease etc.¹⁵ The morbidity profile of surveyed elderly in urban Gujarat by Bhatt et al, revealed that elderly had maximum locomotor problems, followed by vision, hypertension etc. 16 The morbidity profile from a study done in urban slum of Nagpur by Singh et al, highlighted that anaemia was the most common morbidity followed by hypertension, arthritis, cataract etc.17

In the present study it was observed that prevalence of hearing loss was significantly related to gender whereas no significant relationship with gender was observed with cataract, depression, refractive error and locomotor problems. Similar results were also reported by other studies such as; the study done by Shraddha, et al, showed that musculoskeletal problems were not significantly associated with gender. ¹⁰ In a study done by Sharma et al, it was observed that the prevalence of cataract was not significantly related to gender. 11 Dawale et al, observed that the prevalence of hearing impairment to be significantly higher in females as compared to males.¹⁴ Jain, et al, found that the prevalence of diminution of vision was not significantly associated with gender. The study done by Bhatt et al, reported that the prevalence of locomotor, psychosocial problem was not significantly associated with gender. In a study conducted by Singh et al, it was observed that there was no significant gender difference in the prevalence of cataract.¹⁷ However, the results of other studies were different than the present study like Prakash, et al, showed that the prevalence of refractive error, cataract, musculoskeletal problems, depression were significantly related with gender.² The prevalence of cataract & refractory error was significantly associated with gender in as reported in a study done by Shraddha et al. 10 The study done by Sharma et al, showed that osteo- arthritis was significantly associated with gender. 11 The study carried out by Kumar et al, revealed that the prevalence of cataract, hearing problem was significantly higher in

males whereas the prevalence of joint problems was significantly higher in females. 12 In the study done by Chandwani et al, it was found that the prevalence of cataract and hearing loss was found to be significantly higher in males as compared to females whereas the prevalence of arthritis was significantly higher in females. 13 The study done by Dawale et al, showed that the prevalence of arthritis, cataract was significantly associated with gender.14 In a study conducted by Jain et al, it was found that the prevalence of hearing impairment was not significantly associated with gender but arthritis was significantly associated with gender. 4 Bhatt, et al, reported that the prevalence of ear problems was not significantly associated with gender. 16 Singh, et al, found that there was no significant gender difference in the prevalence of deafness.¹⁷

CONCLUSION

The study revealed the magnitude of the health problems faced by the elderly population. As it was observed that the elderly suffered from various physical & mental problems, therefore, the facilities providing geriatric health care services should be strengthened to provide comprehensive services at every level to address the health care needs of the vulnerable elderly population.

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Institutional Ethics Committee

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