

Pattern of certain health problems among the elderly population in rural Aligarh

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Abstract

Background: With the increase in life expectancy, the number of people who have attained old age has increased throughout the globe, particularly more in the developing countries like India. Old age is associated with deterioration of health and increase in morbidity. To provide appropriate care for them there is a need to attain information about their morbidity pattern.

Objective: To study the pattern of certain health problems in the elderly population and to find out the difference in health problems between males and females, if any.

Materials and Methods: Community based cross-sectional study was carried out at field practice area of Rural Health Training Centre, JN Medical College, AMU, Aligarh using systematic random sampling with probability proportionate to size among 225 rural older individuals using pretested and predesigned questionnaire. Data analysis was carried out using SPSS 20. Tests of proportion and χ^2 -test was used. *P*-value <0.05 was considered significant.

Result: Cataract was the most prevalent problem (80.9%), followed by depression (36.9%), refractive error (35.1%), locomotor problem (25.8%), and hearing problem (18.2%). Significant gender difference was seen in the prevalence of cataract, depression, and locomotor problems.

Conclusion: The study concludes that the burden of health problems among elderly population is high that and focussed intervention based on the health care needs of the elderly is required to enable them lead a healthy & productive life.

KEY WORDS: elderly, health problems, pattern, rural

Introduction

Improvement in health care provision together with improved hygiene & sanitation, control of various communicable diseases have resulted in increased life span of human beings with more people attaining older age than before. Old age, as it is associated with various morbid conditions such as physical & psychological problems, have an impact on the provision of

health care. The pattern of prevailing common health problems among the old age communities needs to be investigated so that appropriate measures can be taken at the level of planning, policy making, health care provision for the old aged people at the right time enabling the older individuals to lead a life with good health & prosperity.

Objective

To study the pattern of certain health problems in elderly population and to find out the difference in health problems between males and females, if any.

Materials and Methods

The present study is part of a large community based cross-sectional study carried out at field practice area of

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Rural Health Training Centre, JN Medical College, AMU, Aligarh by using systematic random sampling with probability proportionate to size among 225 rural elderly individuals from July 2013 to June 2014.

Socio-demographic data was recorded by using pretested & predesigned questionnaire. Visual acuity was tested by 6/9 illiterate E chart. Torch light examination of eye was done for cataract. Hearing loss assessment was done by using tuning fork (512 Hz). Locomotor problems were assessed as per criteria used by NSSO, 2002.^[1] Depression was assessed using 15-item Hindi version of Geriatric Depression Scale.^[2-4]

The sample size was calculated from the data obtained from pilot study. Hearing loss (15%) was found to be least prevalent among the above said problems. Thus, it was taken for the sample size calculation as shown in the following:

Sample Size Calculation

$n \sim 4pq/l^2$; $p = 15\%$, absolute precision (l) = 5%, non-response = 10%

$$n = 224-225$$

Ethical clearance was obtained from institutional ethics committee. Data analysis was carried out using SPSS 20. Tests of proportion and χ^2 -test was used. P -value <0.05 was considered significant.

Result

Pattern of Health Problems

Table 1 shows the pattern of certain health problems among the older population. It was observed that the prevalence of cataract was highest among the older population (80.9%) followed by depression (36.9%), refractive error (35.1%), locomotor problems (25.8%), and hearing loss (18.2%).

Association of Health Problems with Gender

Table 1 also depicts the association of health problems with gender. This study revealed that the prevalence of cataract was significantly higher in women (88.6%) as compared to the men (69.9%), the prevalence of depression was significantly higher in women (46.2%) than the men (23.7%). The prevalence of locomotor problems was significantly higher in

women (32.6%) as compared to men (16.1%). However, the prevalence of refractory error was not significantly associated with gender (women 40.2%, men 28%) and the prevalence of hearing loss was not significantly associated with gender (women 20.5%, men 15.1%).

Discussion

This study is a part of larger cross-sectional study conducted in rural field practice areas of Department of Community Medicine, JNMCH, AMU, Aligarh. In this study cataract was found to be the most prevalent health problem (80.9%), followed by depression (36.9%), refractive error (35.1%), locomotor problem (25.8%), and hearing loss (18.2%). The prevalence of cataract, depression, and locomotor problems was observed to be significantly higher in women as compared to men.

Similar to our study, eye problems (mainly cataract and refractive error) has been reported to be the most common morbidity, in a study conducted in rural Maharashtra.^[5] Cataract has been found to be the most prevalent ailment in various other studies such as that conducted in rural Aurangabad^[6] whereas a study from rural Puducherry found that reduced visual acuity was the most common morbidity among geriatric age group.^[7] However, various other studies have reported different health problem as the most prevalent ailment among the similar age group such as a study from Shimla the most frequent health problem reported was musculoskeletal problem followed by hypertension, cataract, dental problems, etc.^[8] Hypertension was the most common disease followed by joint pains/arthritis, cataract, gastritis, deafness, and DM in a study conducted in Chandigarh,^[9] whereas another study in Chandigarh showed that the most prevalent morbidity among older people was anemia followed by dental problems, hypertension, COAD, cataract, and osteoarthritis.^[10] The study from rural Bangladesh reported that the most common diseases among older people were arthritis followed by respiratory tract infection, cataract, diarrhoeal diseases, hyperacidity, dental problem, asthma, hypertension, etc.^[11] The older population suffered most commonly from anemia, joint pains/joint stiffness, dental and chewing problems, visual problems due to cataract and refractive errors, hypertension, and diabetes as reported from a study in rural Tamilnadu.^[12] The most common

Table 1: Health problems of elderly population ($N = 225$)

Health problems	Gender		Total <i>n</i> (%)	Significance
	Male	Female		
	<i>n</i> (%)	<i>n</i> (%)		
Cataract	65 (69.9)	117 (88.6)	182 (80.9)	$\chi^2 = 12.400$, $df = 1$, $p = 0.000$
Refractory error	26 (28)	53 (40.2)	79 (35.1)	$\chi^2 = 3.561$, $df = 1$, $p = 0.059$
Hearing loss	14 (15.1)	27 (20.5)	41 (18.2)	$\chi^2 = 1.068$, $df = 1$, $p = 0.301$
Locomotor problems	15 (16.1)	43 (32.6)	58 (25.8)	$\chi^2 = 7.714$, $df = 1$, $p = 0.005$
Depression	22 (23.7)	61 (46.2)	83 (36.9)	$\chi^2 = 11.942$, $df = 1$, $p = 0.001$

morbidity noted was arthritis followed by eye problems, gastrointestinal problems, respiratory problems, and cardiovascular problems in a study carried out in rural Varanasi.^[13] The study from Dehradun revealed that among the health problems reported at RHTC, hypertension was the most common problem followed by musculoskeletal problems, respiratory problems, and psychosocial problems.^[14] The most common problem reported by older people from a study done in rural Bikaner was dental problems followed by diminished visual acuity, arthritis and disorders of muscles and joints, hypertension, hearing impairment, gastrointestinal complaints, and diabetes.^[15] The camp-based study in rural Varanasi highlighted that the most common disease among older people was osteoarthritis followed by cataract, COPD, etc.^[16] The study carried out in rural Bangladesh revealed that arthritis was the most common chronic health condition followed by hypertension, impaired vision, thyroid hypofunction, obstructive pulmonary symptoms, etc.^[17]

In this study, the prevalence of cataract, locomotor problems, and depression was found to be significantly higher in females. Similar results were also found in other studies, such as, the proportion of women suffering from eye problems, musculoskeletal problems was higher than men as observed in a study conducted in rural Maharashtra.^[5] The study from rural Puducherry showed that proportion of women suffering from reduced visual acuity was higher than the men.^[7] A significantly higher proportion of women suffered from musculoskeletal problems as reported in a study from Shimla.^[8] The study from Chandigarh revealed that the prevalence of arthritis and cataract was higher in women.^[9] Another study from Chandigarh also reported that females had higher morbidities than the men.^[10] The study from Dehradun showed that musculoskeletal problems and psychosocial problems were significantly higher in women than men.^[14] Arthritis and eye problems were found to be significantly higher in women in a study carried out in rural Bikaner.^[15] The study carried out in rural Bangladesh revealed that impaired vision was found to be significantly higher among older women.^[17] However, some studies show different results than this study such as, the proportion of females suffering from hearing impairment was found to be higher than the males in the study from rural Puducherry.^[7] The study done in Chandigarh revealed that the prevalence of deafness was higher in women.^[9]

The study highlights the pattern of health problems among the older population residing in rural area of Aligarh and the association of health problems with the gender. However, drawback of the study to depict association lies in being of its cross-sectional nature. The true association can only be figured out by the randomized intervention studies taking into account the other sociodemographic variables that can potentially confound the association.

Conclusion

Among the health problems studied, the prevalence of cataract was found to be highest followed by depression,

refractive error, locomotor problem, and hearing problem. Cataract, depression, and locomotor problems were significantly related with gender.

Therefore, there is a need for comprehensive geriatric care service that focuses on preventive and promotive services to enable the older people lead a life free from physical and psychosocial problems, thus contributing to the social and economic development of society and country as a whole.

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