

Original Research Article

Study of morbidity pattern among geriatric patients attending outpatient department of a rural health training center, Maner of IGIMS, Patna

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ABSTRACT

Background: With increasing life expectancy, number of old age people increased throughout the world, particularly more in the developing countries like India. Globally there are an estimated 605 million people aged 60 years and above. As the ageing population is increasing, the burden of their health problems is on a rise. To provide appropriate care for them there is a need to attain information about their morbidity pattern. Objectives: to study the morbidity pattern among the geriatric patients attending outpatient department of RHTC, Maner of IGIMS, Patna and to find out the difference in health problems between males and females, if any.

Methods: This hospital based cross-sectional study was conducted during September 2017 to February 2018 among 98 elderly patients, aged 60 years or above, who attended first time at the Out Patient Department of rural health training center, Maner of IGIMS, Patna and who fulfilled inclusion criterion.

Results: In this study majority had normal nutritional status. Amongst morbidity, prevalence of locomotors problems was highest (63.26%) followed by depression (42.85%), refractive error (20.4%), hearing loss (18.2%) and cataract (15.3). Locomotors problems were significantly higher in women (93.75%) as compared to the men (34%). However, the prevalence of depression, refractory error, hearing loss and cataract were not significantly associated with gender.

Conclusions: There is a need to deliver comprehensive geriatric health care services for prevention and control of chronic diseases and address the dual burden of disease among the elderly to promote healthy ageing.

Keywords: Geriatric patients, Morbidity pattern, Outpatient department, Rural health training center

INTRODUCTION

Improvement in health care provision together with improved hygiene and sanitation, control of various communicable diseases have resulted in increased life span of human beings with more people attaining older age than before.¹ Old age, as it is associated with various morbid conditions such as physical and psychological

problems have an impact on the provision of health care.² 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, and health care provision for the old aged people at the right time enabling the older individuals to lead a life with good health and prosperity.

Objectives

- To study the morbidity pattern among the geriatric patients attending outpatient department of rural health training center, Maner of IGIMS, Patna.
- To find out the difference in health problems between males and females, if any.

METHODS

This institution based cross-sectional study was conducted in a span of 6 Months once in a week during September 2017 to February 2018 on morbidity pattern among elderly study participants aged 60 years and above attended out patients department of Rural Health Training center, Maner of IGIMS, Patna.

The study population was including 98 elderly patients, who attended first time during the study period at the outpatient department (OPD) of Rural Health Training Center. The analysis was done on the basis of new patients only; if the same patient came for consultation for more than one time for a particular illness then he/she was considered once. The study population consisted of elderly patients fulfilling inclusion and exclusion criteria as well as providing informed written consent to participate in the proposed study. Inclusion criteria for recruitment of participants were, elderly patients those who are attending the first time OPD and given written informed consent, willing to participate and who has given written consent. We excluded patients who were severely ill, did not consent to the study and those who did not fulfill the inclusion criteria.

Ethical consideration

Ethical clearance was obtained from the institutional review board. All the participants were explained about the purpose of the study and were ensured strict confidentiality. Written informed consent in their vernacular was obtained from each participant prior to participate in the proposed study and was given the options not to participate in the study if they wanted and have rights to interrupt the interview at any time. Confidentiality was maintained at all levels of the study. Elderly patients who were need referred for further investigations.

Data collection and study instrument

Data regarding family and personal characteristics were recorded by interview technique by the principal investigator using predesigned and pretested semi structured questionnaire. This data collection tool used for the study was an interview schedule that was developed at the Institute with the assistance from the faculty members and other experts. By initial translation, back-translation, retranslation followed by pilot study, the questionnaire was custom-made for the study. The pilot study was carried out at the outpatients department of the

Institute among comparable subjects attending outpatient department for the treatment of other disease, following which some of the questions from the interview schedule were modified. Socio-demographic data was recorded by using pretested and 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). Locomotors problems were assessed as per criteria used by NSSO, 2002.³ Depression was assessed using 15-item Hindi version of Geriatric Depression Scale.^{4,5} Body weight of the participants was measured (to the nearest 0.5 kg) in the standing, motionless position on the calibrated bathroom scale in minimum clothing with feet 15 cm apart, and weight equally distributed on each leg. Height was measured (to the nearest 0.5 cm) by a Stadiometer in the standing position with closed feet, holding their breath in full inspiration and in the Frankfurt line of vision.

Statistical analyses

Data were analyzed using Microsoft® Excel and Epi-Info 7. Tests of proportion and χ^2 test was used. A p value of less than 0.05 was considered statistically significant.

RESULTS

The nutritional status of the study subjects according to sex is shown in Table 1. 32 (32.65%) out of 98 participants, 11 (11.22%) were underweight, 18 (18.36%) were overweight and 1 (3%) was obese. Pre obesity 10 (55.55) and obesity 2 (66.66) was more among women as compared to male (Table 1). Amongst 98 study participants total 157 specified morbid conditions were recorded. Some of the individuals complained more than one morbid condition. Table 2 shows the pattern of certain health problems among the older population. It was observed that the prevalence of locomotors problems was highest among the older population (63.26%) followed by depression (42.85%), refractive error (20.4%), hearing loss (18.2%) and cataract (15.3). This study revealed that the prevalence of locomotors problems was significantly higher in women (93.75%) as compared to the men (34%). However, the prevalence of depression (women 45.83%, men 40%), refractory error (women 18.75%, men 22%), hearing loss (women 8.16%, men 20%) and cataract (women 20.83%, men 10%) were not significantly associated with gender (Table 2).

Table 1: Nutritional Status of study Subjects (as per body mass index).

Nutritional status (BMI)	Males N (%)	Female N (%)	Total (%)
Underweight (<18)	6 (54.54)	5 (45.45)	11 (11.22)
Normal (18-25)	35 (53.03)	31 (46.96)	66 (67.34)
Pre-obese (25-29)	8 (44.44)	10 (55.55)	18 (18.36)
Obese (≥ 30)	1 (33.33)	2 (66.66)	3 (3)
Total	50 (51.02)	48 (48.97)	98 (100)

BMI=Body mass index.

Table 2: Health Problems of elderly population (N= 98).

Health Problems	Male N (%)	Female N (%)	Total N (%)	χ^2 - value	df	P value
Cataract	5 (10)	10 (20.83)	15 (15.3)	2.186	1	>0.05
Refractory error	11 (22)	9 (18.75)	20 (20.4)	0.1557	1	>0.5
Hearing loss	10 (20)	8 (8.16)	18 (18.36)	0.177	1	>0.5
Locomotors problems	17 (34)	45 (93.75)	62 (63.26)	37.629	1	<0.01
Depression	20 (40)	22 (22.44)	42 (45.83)	0.3375	1	>0.1

DISCUSSION

This institution based cross-sectional study was conducted among the elderly patients attending out patients department of rural health training center, Maner of IGIMS, Patna. In this study Majority had normal nutritional status and there were one obese individual. Under nutrition was found in male patients, 6 (12%) and in females 5 (10.41%) while 8 (16%) were pre- obese among males and 10 (20.83%) among females. Morbidity pattern was observed that the prevalence of locomotors problems was highest among the older population (63.26%) followed by depression (42.85%), refractive error (20.4%), hearing loss (18.2%) and cataract (15.3%). Prevalence of locomotor problems was significantly higher in women (93.75%) as compared to the men (34%). However, the prevalence of depression (women 45.83%, men 40%), refractory error (women 18.75%, men 22%), hearing loss (women 8.16%, men 20%) and cataract (women 20.83%, men 10%) were not significantly associated with gender.

Similar to our study, such as a study from Shimla the most frequent health problem reported was musculoskeletal problem followed by hypertension, cataract, dental problems, etc.⁶

However, various other studies have reported different health problem as the most prevalent ailment among the similar age group eye problems (mainly cataract and refractive error) has been reported to be the most common morbidity, in a study conducted in rural Maharashtra.⁷ Cataract has been found to be the most prevalent ailment in various other studies such as that conducted in rural Aurangabad.⁸ whereas a study from rural Puducherry found that reduced visual acuity was the most common morbidity among geriatric age group.⁹ Hypertension was the most common disease followed by joint pains/arthritis, cataract, gastritis, deafness, and DM in a study conducted in Chandigarh, 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.^{10,11} The study from rural Bangladesh reported that the most common diseases among older people were arthritis followed by respiratory tract infection, cataract, diarrheal diseases, hyperacidity, dental problem, asthma, hypertension, etc.¹² 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.¹³ The most common morbidity noted was arthritis followed by eye problems, gastrointestinal problems, respiratory problems, and cardiovascular problems in a study carried out in rural Varanasi.¹⁴ 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.¹⁵ 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.¹⁶ Prakash et al reported a prevalence of 14.6% for musculoskeletal disorders, 14% for asthma, 46.3% for chronic bronchitis among elderly subjects in their study.¹⁷ Hiremath observed similar findings in his study among the elderly i.e. hypertension (78.65%), bronchial asthma (77.52%) and osteoarthritis (73.03%).¹⁸

CONCLUSION

In this study Majority had normal nutritional status but overweight and obesity was more among women. Morbidity pattern was observed that the prevalence of locomotors problems was highest among the older population followed by depression, refractive error, hearing loss and cataract. Prevalence of locomotors problems was significantly higher in women as compared to the men. However, the prevalence of depression, refractory error, hearing loss and cataract were not significantly associated with gender. Since the subjects included in the study were patients attending the outpatient department with various health problems, the study findings cannot be generalized to the community at large. There is a need to deliver comprehensive geriatric health care services for prevention and control of chronic diseases and address the dual burden of disease among the elderly to promote healthy ageing.

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Conflict of interest: None declared

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