Research Article

Morbidity profile of inmates in old age homes in Mangalore, South India

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Abstract

Background: Ageing is a natural and inevitable process. As per WHO, in 2012, it has been estimated that over 8% of the total population is aged above 60 years. This proportion is expected to increase to 12% by 2025 and over 20% by 2050. India is witnessing a rapid increment in aged population constituting 8.2% of the national population. The old age homes, which were uncommon, have recently spread across the country indicating the growing rift between the generations.

Objective: To assess the morbidity and sociodemographic profile of inmates in old age homes in Mangalore.

Materials and Methods: The present study was a cross-sectional study done in three selected old age homes in Mangalore from June 2015 to August 2015. Universal sampling was done to obtain a sample size of 87. Totally, 80 inmates were enrolled. Data were obtained by interviewer method, medical records, and clinical examination, by using a pretested questionnaire after obtaining an informed consent.

Results: Among the 80 inmates, 25% were male and 75% were female, out of which 63% were in the age group of 60–70 years. Among the elders, 69% were widow/widower, 55% did not have any source of income, 29% were illiterate and 46% had completed primary education, 75% had musculoskeletal disorders, 69 % had visual defects, 64% were hypertensive, 30% had dental problems, and 28% were diabetic.

Conclusion: There is an essential need for specialized geriatric clinics. Proper and regular health checkups should be conducted in old age homes with referral services. There is a need for insurance coverage for all the elders to meet their medical expenses.

KEY WORDS: Elders, old age homes, morbidity profile

Introduction

Sir James Sterling Ross says "You do not heal old age. you protect it; you promote it; you extend it."[1] Ageing is a normal, physiological, inevitable, biological and universal phenomenon that happens in all the living beings.[2] "The UN defines a country as 'ageing' where the proportion of people over 60 years reaches 7 percent."[3] In the year 2002, there were around 605 million old persons in the world; out of which 400 million were living in low-income countries. By 2025, the proportion of old aged is expected to rise more than 1.2 billion with about 840 million of these in low-income countries. In India, according to 2001 census there were 76.6 million aged 60 years and above constituting 7.7% of the total population and is expected to reach 12.6% in 2025.[3]

Ageing of population is affected due to downward trends in fertility and mortality. Low birth rates coupled with long life expectancies, push the population to an ageing humanity. It is observed that percentage of aged 60 or more is rapidly swelling and even the percentage of persons above age 80 is going up over the years. Simultaneously, the ratio of people of "working age" (15–59 years) to those of elderly population is shrinking. For the developing countries like India, the ageing population may pose mounting pressures on various socioeconomic fronts including pension outlays, health-care expenditures, fiscal discipline, and savings levels.[4]

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Urbanization, modernization, and globalization have changed the traditional concept of family in India, as a consequence of which the older generation is caught between a decline in traditional values and absence to adequate social security. However, with rapid changes in the social scenario and the emerging prevalence of nuclear family set ups in India, in recent years, the elderly people are likely to be exposed to emotional, physical, and financial insecurity in the years to come. The old age homes, which were uncommon, have recently spread across the country, indicating the growing rift between the generations.[4,5]

Health status has a significant impact on the quality of life of elderly population. Perceived health, chronic illness, and functional status are major elements of health status in the elderly because perceived health declines with age and chronic health problems increase with age. Furthermore, there is a growing body of evidence indicating that older people are at risk for multiple comorbidities.[6]With this background, the present study was conducted to assess the morbidity and sociodemographic profile of inmates in old age homes in Mangalore.

Materials and Methods

The proposed study was a cross-sectional study conducted among elderly aged 60 years and above in three old age homes namely Sevashrama-Belma, Vathsalyadhamakadri, and Shantidhama-Farangipet in Mangalore, which are attached to the field practice area of the Department of Community Medicine. Study was conducted over a period of 3 months from June 2015 to August 2015. Universal sampling was done, and the sample size was determined to be 87 inmates, out of which 80 gave a consent to participate in the study. The data were obtained using a pretested questionnaire consisting of sociodemographic characteristics and by diagnosis, which was done on the basis of clinical examination and medical records. Blood pressure and random blood sugar of all the inmates were recorded after obtaining a written informed consent.

Blood pressure was measured using standardized mercury sphygmomanometer in a sitting position. According to JNC VIII guidelines, blood pressure measuring more than or equal to 140/90 mmHg in two or three readings was taken as hypertensive. Random blood sugars were checked under aseptic precautions as per WHO recommendations, the average of two RBS > 200 mg/L measured on two different occasions was taken as diabetic. Mini mental state examination was used for testing cognition, scores less than 25 were considered to have impaired cognition. Ethical clearance was obtained from Institutional ethical committee.

Statistical analysis-mean, percentage, and proportions were used to analyze the data using SPSS software version 16.

Results

Among the 87 inmates in the old age homes, 80 were enrolled in the study, out of which 20 (25%) were male and 60 (75%) were female. Mean age of the inmates was 70.1 years ± 7.2 (SD), males 69.4 years ± 6.7 (SD) and females 70.4 years ± 7.4 (SD). Majority of the inmates were in the age group of 60–70 years (63%). Among the male inmates, 16 (80%) were married, 9 (45%) were widowers, and 4 (20%) were unmarried; among the females, 50 (83%) were married, 46 (77%) were widows, and 10 (17%) were unmarried. When asked about the economic status, 44 (55%) of them did not had any source of income (neither in the form of pension or through the help of family members). All the male inmates were literate and among the females 23 (29%) were illiterate (Table 1).

From Table 2, it is observed that musculoskeletal disorder was the most common morbidity (75%) followed by eye problems (69%), hypertension (64%), and dental caries (60%).

Discussion

The present study conducted in three selected old age homes with around 80 respondents showed that majority of our study participants were female (*n* = 60); all male inmates

Table1: Sociodemographic characteristics of inmates

Sociodemographic variables	Gender		Total (%)
Gender	**Male**	**Female**	
	n = 20	N = 60	n = 80
	n (%)	N (%)	n (%)
Age			
60–70 years	12 (60%)	38 (63%)	50 (63%)
71–80 years	7 (35%)	14 (23%)	21 (26%)
81–90 years	1 (5%)	8 (14%)	9 (11%)
Literacy status			
Illiterate	0 (0%)	23 (38%)	23 (29%)
Primary education	11 (55%)	26 (43%)	37 (46%)
Secondary education	7 (35%)	9 (15%)	16 (20%)
Puc	1 (5%)	2 (4%)	3 (4%)
Graduate	1 (5%)	0 (0%)	1 (1%)
Marital status			
Married	16 (80%)	50 (83%)	66 (83%)
Unmarried	4 (20%)	10 (17%)	14 (18%)
Widow/widower	9 (45%)	46 (77%)	55 (69%)
Income			
Nil	9 (45%)	35 (58%)	44 (55%)
Less than or equal to 500	9 (45%)	12 (20%)	21 (26%)
More than 500	2 (10%)	13 (22%)	15 (19%)

Table 2: Morbidity profile of inmates

Health problems	Gender		otal
	Male	Female	N = 80 (%)
	N = 20 (%)	N = 60 (%)	
Visual defects*	13 (65%)	42 (70%)	55 (69%)
Hypertension	15 (75%)	36 (60%)	51 (64%)
Diabetes mellitus	7 (35%)	15 (25%)	22 (28%)
Hearing impairment	7 (35%)	17 (28%)	24 (30%)
Oral problems**	15 (75%)	33 (55%)	48 (60%)
Musculoskeletal disorders***	15 (75%)	45 (75%)	60 (75%)
Cognitive defect	3 (15%)	15 (25%)	18 (23%)
Other health issues****	2 (10%)	18 (30%)	20 (25%)
Peripheral neuropathy	1 (5%)	18 (30%)	19 (24%)

*Visual defects include cataracts and refractive errors.
**Oral problems are dental caries and edentulous.
****Musculoskeletal disorders include osteoarthritis, back pain, and fractures.
****Other health disorders are persistent constipation, urinary incontinence, and skin disorders.

were literate, and economic instability was seen in 55% of the elders. Most of our respondents suffered from one or the other form of morbidities. Musculoskeletal disorders and visual impairment constituted the most common ailments followed by hypertension and dental caries. Most of their health conditions were found to be unrecognized and untreated.

In our study, out of 80 respondents, we found that majority of the elders were female (75%) when compared to male (25%); we could see a similar proportion in the study conducted by Asadullah et al.[5] on morbidity profile and quality of life of elders in Udupi district (out of 90 respondents, 74.4% were found to be female) and a study by Anitha Rani et al.[7] in Chennai (out of 210 inmates, 63% were female), and this could be due to the increase in sex ratio among the elderly population. Majority of the inmates were in the age group of 60–70 years, which were similar to the previous studies[6–8] and this could be due to an increase in life expectancy in this age group. In our study, we found that 18% of inmates were single; among the 83% of the married inmates, 69% were widow/widower and we could find similar findings in the study conducted by Anitha Rani et al.[7] in which 54% were widows, and Shraddha et al. (45%),[9] as this group of elders were economically dependent on others. Our study showed literacy status of 71% among the elders. Asadullah et al.[5] showed 80% literacy status, Anitha Rani et al.[7] and Bhat et al.[10] showed the literacy status of 81.7% and 88%, respectively, in their study; in our study, majority of our inmates had completed their formal schooling. Majority of the elders (55%) did not had any source of income, which could contribute to have a significant impact on their health status and quality of life and we found similar results in a study on morbidity profile by Asadullah et al.[5] (67.8%) and Deotale et al.[6] (52%), and this is because most of them were economically dependent and were not aware of social security schemes.

The present study showed that, the most common morbidity identified among the inmates was musculoskeletal disorders (75%) and eye problems (69%) followed by hypertension (64%). Similar observations were seen in the study by Asadullah et al.,[5] Deotale et al.,[6] and Joshi et al.[11] and the reason is that most of our participants were not evaluated and treated. In our study, the prevalence of hypertension was found to be 64%, which was comparatively higher than in the study by Asadullah et al. and Anitha Rani et al.,[5,7] where the prevalence of hypertension was 44% and 40%, respectively; the reason is more intake of sea foods, as Mangalore is a coastal region and there was no restriction in salt intake in their diet. Prevalence of dental problems was found to be 60%, which was comparatively higher than that in the studies by Anitha Rani et al.[7] (37.6%) and Shraddha et al.[9] (32.3%), and the higher prevalence in our study was due to poor oral hygiene.

Strength and limitation of the study:

The strength of this study is that, many studies have been conducted on geriatric morbidity in a community but only a few studies have explored the health problems of institutionalized elders. We could screen many undiagnosed health problems, such as hypertension and diabetes, and could refer them for further evaluation. There are around seven old age homes in Mangalore and we have explored three (covering around 50%), so the morbidity pattern seen in our study can be generalized to rest of the old age homes in Mangalore.

One of the limitations of this study is that the investigations/tests pertaining to various other morbidities could not be performed, except for screening for diabetes and hypertension, as the range of morbidities was very wide and this study was done based on history, clinical examination, and medical records.

Conclusion

As the range of morbidity was wide, there is a need for specialized geriatric clinics and strengthening of the healthcare system for these institutionalized elders. There is a need for screening common metabolic disorders with regular health checkups and eye camps for screening especially cataracts with timely referral services. Health education for the inmates as well as caretakers is a must to improve their attitude toward health seeking behavior and treatment adherence. There is a need for insurance coverage for all the elders to meet their medical expenses and also provision for subsidized drugs. Health problems should be tackled with psychosocial support.

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