Research Article

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Study of the prevailing morbidities in geriatric women living in an urban slum in Mumbai, Maharashtra, India

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ABSTRACT

Background: Longevity has increased worldwide. This can be attributed to improved food and nutrition developments in health, and better sanitation. Old age brings in its wake, a lot of chronic ailments. Women, particularly in India, and are hard hit, due to gender marginalization. The objectives of the study were, the present study was undertaken in an urban slum in Mumbai to determine prevalence of health morbidities in geriatric women. **Methods:** A cross-sectional study was carried out during the period of Aug. 2008 to Nov. 2009 in the urban field

Methods: A cross-sectional study was carried out during the period of Aug. 2008 to Nov. 2009 in the urban field practice area of Medical College in Mumbai. A total of 336 elderly consenting women above 60 years of age, were enrolled in the study. Pre-designed and pre-structured questionnaire was used for data collection. Data were analysed by using the SPSS software version-16.

Results: Depression (50.8%) followed by hypertension (38.4%) was seen to be the commonest prevalent morbidities next commonest being 24 (17.39%) cataract, while 15(10.86%) had joint pain; 10 (7.24%) had diabetes, 7 (5.07%) had suffered from stroke, 06 (4.34%) had bronchial asthma, 05(3.62%) had ischemic heart disease, 04 (2.89%) had fracture, 04 (2.89%) suffered from deafness and (0.72%) had been diagnosed as diabetes.

Conclusions: Community based screening programmes and subsequent interventions are urgently recommended to meet the need of this vulnerable age group.

Keywords: Prevalence, Morbidity, Geriatric women, Urban slum

INTRODUCTION

Old age cannot be healed, but we can protect it, promote it and extend it. Ageing begins significantly to affect the performance of their daily tasks and can even spoil the usual pleasures. In 1980, the United Nations defined 60 years as the age of transition of people to the elderly segment of the population, while it is 65 years and above for most of the developed world. The twentieth century has witnessed advancements like increased survival, improved nutrition, better health care and control of

many infectious diseases, and this has resulted in an increased longevity. 5

Due to these reasons, the proportion of the elderly in the total world population is increasing rapidly.⁶ According to the UN Population Division, the elderly will account for 32% of the population by 2050.⁷ In India, the geriatric population was 7.7% in 2001 and it is projected to be 21% in 2050.⁸ Presently, we have 60 million women in the this age bracket and their life expectancy is 68.2 years.⁹

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Due to negligence, lack of awareness, financial dependence and religious mind set of women, older women often have to face acute and chronic health problems. Also, as women are the more marginalized gender and are more at risk of morbidities and this study was conducted with this in mind.

Objectives of the study were,

- To study the morbidity pattern and sociodemographic profile in geriatric women in an urban slum.
- 2. To assess economic status and dependency of geriatric population in that community.

METHODS

A cross-sectional epidemiological study was carried out during the period of August 2008 to November 2009. The present study was conducted in the in the urban field practice area of medical college in Mumbai. The study subjects in the age group of 60 years and above and residing in this area and willing to participate were included in the study. A total of 336 elderly consenting women above 60 years of age, were enrolled in the study, by house to house survey using a pre-validated questionnaire. Clinical history and physical examination was done.

Sampling tool

Considering the average prevalence of depression in geriatric women as 70%, the sample size was calculated at allowable error of 5% as follows:

$$p = 70, q = 100 - p = 30$$

L = Allowable error = 5%

Sample size =
$$\frac{4 p q}{L^2}$$

= $\frac{4x 70 \times 30}{5 \times 5}$
= 336

By using simple random sampling one zone was selected for the purpose of study consisting of total population of 32554. In the pilot study that was conducted the average household size for the slum under study was found to be 5, therefore the number of households in the area F were calculated as.

No. of households in Area
$$F = \frac{\text{Total population of area } F}{\text{Average family size}}$$

$$= \frac{32500}{5}$$

$$= 6500$$

Data collection

The Systemic random sampling method was used to select the houses in the MHB colony. The last number of a randomly picked currency note was taken for selecting the 1st house. It came out to be 5. Therefore every 5th house was considered for the study. The households were surveyed till the desired sample size was achieved.

It was ensured that every 5th house considered for the study sample was visited three times, so as to include it in the study. If the fifth household did not have elderly woman in the family then the consecutive household on left side of the house was selected. If the selected house was found locked for all even after third visit, the next immediate house on the left side of the 5th house was considered for the work. If the next house was also found locked for all three times, then the house previous to 5th house was considered for the study. If this house was also found locked for all the three times, then the sample was omitted from the study.

Utmost care was taken to include maximum possible sample houses selected for the work in the study carried out. From each single house only one woman over the age of 60 years was selected randomly for the study. If at the time of interview, the person was not available two more visits were paid to the house at the time convenient for the subject to be available. If the person could not be contacted even after 3 visits was discarded from the study sample. A total of 650 households were surveyed during the study by systemic random sampling. These households constituted a total population of 3840 out of which 336 (8.75%) were women aged 60 years and above were enrolled for the study. The information collected in the study proforma was analysed using the SPSS software, version-16.

RESULTS

It was seen from Table 1 that the number of old aged women was 148 (44.04%) in 60-65 years age group, decreased to 77 (22.91%) in the 65-70 years age group and was 46 (13.69%) in 70-75 years' age group, but it was found that the oldest old i.e. 80 years and above were 11.90%. It is seen that Muslim population was slightly more than Hindu population in the study area i. e. Muslims were 179 (53.27%) and 123 (36.60%) were Hindus. Out of 336 geriatric women, 246 (73.21%) were illiterate, and there was no female in the study who was a graduate. There was very high illiteracy rate among the females. Most of the geriatric populations were from lower middle i. e. 228 (67.85%) and upper lower i. e. 65 socio-economic status. According to employment status, 33 (9.82%) were employed, while 303 (90.17%) were unemployed. It was found that more females were unemployed because most of the females were housewives. 74 (22.02%) women had some form of addictions. Of these, 25 (33.8%) were habituated to tobacco chewing, 03 (4.05%), to tobacco smoking, 43 (58.10%) to chewing paan with lime and 03 (4.05%) to alcohol. Out of total 336 older persons, 301 (89.58%) were suffering from one or more chronic illnesses.

Table 1: Distribution of study population according to socio-demographic characteristics.

Socio-demographic characteristics	Number (n=336)	Percentage
Age (in years)		
60 - 65	148	44.04
65 – 70	77	22.91
70 – 75	46	13.69
75 – 80	25	7.44
>80	40	11.90
Religion		
Hindu	123	36.60
Muslim	179	53.27
Budha	12	3.57
Christian	16	4.76
Sikh	06	1.78
Education		
Illiterate	246	73.21
Primary	62	18.45
Secondary	22	6.54
Higher Secondary	06	1.78
Graduate	00	00
Socio-economic status		
Class I	00	00
Class II	03	0.89
Class III	65	19.34
Class IV	228	67.85
Class V	40	11.90
Economic Dependency	y	
Self dependent	33	9.83
Dependent	303	90.17

It is evident from Table 2, which some women suffered from multiple chronic illnesses at a point in time. So for the purpose of this study, we selected the single most serious illness in the subject, irrespective of the first illness at onset of presentation. The commonest chronic illness was depression- 177 (50.8%) women were affected, next commonest being hypertension- 53 (38.4%). 24 (17.39%) had cataract, while 15 (10.86%) had joint pains. 10 (7.24%) had diabetes, 7 (5.07%) had suffered from stroke, 06 (4.34%) had bronchial asthma, 05 (3.62%) had ischemic heart disease, 04 (2.89%) had fracture, 04 (2.89%) suffered from deafness, and (0.72%) had been diagnosed as diabetes. Many of them had been operated for cataract and had IOL implantation done. There was no person suffering from neither cancer, nor epilepsy at the time of study. It is seen that out of total 336 study population, 280 (83.33%) were not dependent on others to perform their self-care activities, 37 (11.01%) with minimum assistance, 52(15.47%) fall in modified independence group. 12 (3.57%) out of 336 total elderly performed the activities with maximum assistance. 10 (2.97%) could perform with moderate assistance, 03 (0.89%) were completely dependent on their family members for their daily self-care activities because they were suffering from quadriplegia. This indicates that most of the females in study population could perform their self-care activities of daily living with equal efficiency.

Table 2: Distribution of study population according to their illness.

Illness	Number	Percentage	
Chronic illness present (n=336)			
Yes	138	72.32	
No	198	27.68	
Addictions (n=336)			
Yes	74	22.02	
No	262	77.98	
Types of addiction (n=74)			
Tobacco chewing	25	33.79	
Smoking	03	4.05	
Paan with lime	43	58.10	
Alcohol	03	4.05	
Types of illness			
Depression	171	50.8	
Hypertension	53	38.4	
Cataract	24	7.1	
Joint pains	15	4.4	
Diabetes	10	2.9	
Stroke	07	2.0	
Bronchail asthma	06	1.7	
IHD	05	1.4	
Fracture	04	1.1	
Deafness	04	1.1	
Skin disorder	01	0.29	
Tuberculosis	01	0.29	
Cancer	00	00	
Instrumental activities (n=336)			
Dependent	03	0.89	
With maximum assistance	12	3.57	
With moderate assistance	10	2.97	
With minimum assistance	37	11.01	
Modified independence	52	15.47	
Complete independence	222	66.07	

DISCUSSION

By 2025, women above 60 years in India would constitute 14% of total population, which itself speaks of the immensity of the problem. In our study, number of old aged women was 148 (44.04%) in 60-65 years age group, decreased to 77 (22.91%) in the 65-70 years age group and was 46 (13.69%) in 70-75 years' age group, but it was found that the oldest old i.e. 80 years and above were 11.90% and Muslims were 179 (53.27%) and 123 (36.60%) were Hindus and 246 (73.21%) were illiterate. Similarly study carried out by Padda AS et al in

villages near Amritsar reported amongst 698 aged persons, 423 (60.60%) were males and 275 (39.40%) were females, 393 (56.3%) were in the age group of 60-65 years while only 34 (4.8%) were more than 80 years. Majority (58.45%) belonged to Sikh community followed by Hindus (39.9%). 61.37% aged persons were literate and 38.63% were illiterate. 73.74% of all aged were living in joint families. 68.39% aged persons were engaged in one or other works while 31.61% were dependent on other family members.

In our study, there was very high illiteracy rate among the females (73.21%). These findings are comparable to those in the study carried out by Gurav RB et al. in an urban area of Mumbai city which reported that only 22.86% females were literate, while 77.14% females were illiterate.⁷

In our study, the majority (90%) were dependent on their family members for economic support. Again, these findings are similar to those of the study conducted in rural Tamil Nadu by Elango S which revealed that that only 12% of women were economically independent, 27% of old people were engaged in some part-time jobs, whereas 73% were not economically active. ¹¹

In our study, 74 (22.02%) women had some form of addiction. In concordance, a study conducted by Murthy P et al also found alcohol addiction to be 21.4% in Delhi. Of these, 25 (33.8%) were habituated to tobacco chewing, 3 (4.05%) to tobacco smoking, 43 (58.10%) to chewing paan with lime and 3 (4.05%) to alcohol. NFHS-3 has reflected an increase in tobacco use among Indian women.

Out of total 336 older persons, 301 (89.58 %) were suffering from one or more chronic illnesses. The commonest chronic illness was depression-177 (50%) next common being hypertension-53 (38%) followed by cataract, joint pains, diabetes, stroke, bronchial asthma, ischemic heart disease, fracture, deafness, and diabetes were the other afflictions seen. Many of the women had been operated for cataract and had IOL implantation done. There was no person suffering from neither cancer, nor epilepsy at the time of study. A study done by Qadri S et al^[4] found that the majority of elderly were anaemic (64.5%) and had dental problems (62.2%), followed by joint pains (51.4%), cataract (46.8%), hypertension (44.5%), and 25.4% were having senile deafness, 22.2% suffered from acid peptic disease, and 9% were diagnosed cases of diabetes mellitus. But the population consisted of both men and women, whereas the present study was conducted only in women. A study done by Kumar R also found the prevalence of various morbidities like hypertension (13.12%), arthritis (11.25%), cataract (11.87%), dental problems (4.37%), diabetes mellitus (3.75%), skin problems (3.12%) and gastric trouble (1.25%).³

Out of total 336 study population, the majority 280

(83.33%) were not dependent on others to perform their self care activities and the 3 (0.89%) who were completely dependent on their family members for their daily self care activities because they were suffering from quadriplegia. This is a positive sign, as one of the indicators of quality of life is functional independence.

CONCLUSION

The present study has highlighted the high prevalence of depression and hypertension in urban elderly women. In addition, joint pains, and diabetes were also seen. Community based primary preventive measures can help address these issues in a cost effective manner. Interventions such screening and subsequent follow up must be initiated, so as to provide effective management of the health problems of the elderly women.

Limitations

The present study was conducted in women in an urban slum; hence the findings cannot be extrapolated to rural women. Similar studies have shown older men to be also vulnerable to chronic diseases, but as they were not included in our sample, the findings cannot be extended to the whole community. Laboratory tests were not done; hence there is a possibility of missed diagnoses, especially in the early stages of illnesses.

Recommendations

The study highlighted the presence of depression in 50.8% of women, while hypertension was present in 38.4%. These afflictions are usually managed better with primary prevention. Further studies are recommended to elicit their prevalence in urban & rural areas, as well as their association with socio-demographic status. Community based interventions are urgently recommended to meet the need of this vulnerable age group.

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Institutional Ethics Committee

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