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Original Research Article

Health and associated social problems of elderly population in an urban setting: a study from Kolkata, India

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ABSTRACT

Background: World population is aging, in its truest sense of the term. Therefore socio-economic condition of the elderly population is changing constantly, which is adversely affected by various health problems during their way of life course. This study aimed to describe the relation between different comorbidities and social problems of the elderly people.
Methods: A community-based cross-sectional study was carried out by house to house visit in an urban setting in greater Kolkata area, the field practice area of a family physician. A total of 208 elderly patients (60 years old and above) were interviewed using a pre-tested schedule. Study findings were recorded in terms of proportions and percentages and its correlation to social problems was searched.
Results: Male older adults were more than their female counterparts, though widows were more in numbers than widowers. Most of them were having multiple morbidities (87.98%). Visual impairment was the commonest problem detected in the studied elderly population with prevalence of 75.96% (158/208). Prevalence of hypertension was 68.75% (143/208). Other significant morbidities seen are auditory, musculoskeletal, urinary, cardiac etc.
Conclusions: The result of the study showed that health problem has a significant relation with increasing age in human beings. Awareness generation should be done among the elderly people for regular health check-ups to ensure prevention and early detection of many chronic diseases. So the strategies are required to bring about the quality of life in health, which should be an equal responsibility for individual, family, society and the government.

Keywords: Elderly, Comorbidity, Urban, Social problem, Health problem

INTRODUCTION

India is the second-most populous country (with over 1.2 billion people) and one of the most populous democracies in the world. Though population ageing is a global phenomenon, but the number of elderly people in India is growing in a rapid transition than many other countries. A person aged 60 years or above is referred to as 'elderly' in India. Presently, India is the home of 10.39 crore people ages 60 or older, which is 8.6% of total population. Among them 5.11 crore are male and 5.28 crore are female.[1] According to the United Nations Population Division, the population of India, ages 60 and older is projected to climb from 8 percent in 2010 to 19 percent in 2050.[2]

The most pressing global challenges to older persons' welfare are poverty, malnutrition, unattended chronic diseases, lack of access to safe drinking water and sanitation and income security.[3] India is the home of people of various ethnicity, religion, culture and languages. Therefore the above challenges facing by the

country are more complex in nature. A steady rise in life expectancy and reduction in fertility influences on the needs and problems of the elderly. All these issues have a great significance while discussing current socio-demographic profile of the growing elderly population of India. Though modern treatment protocol has increased the life expectancy, but in the perspective of this country's health system it is still not achieved the target level. Currently there are various health systems available in India, such as Allopath (most widely used at present), Ayurveda, Yoga, Siddha (all are ancient Indian culture), Unani (Arabic medical system introduced by Muslim rulers), Homeopathy (AYUSH), etc. But in any system health care for older adults was not categorized significantly and both physical and mental health care continued to be provided as for adults.[4] But the special health and economic issues of the elderly differ from those of the general population.[5] The elderly people in this country usually suffer from two types of health problems, one is medical and another is psychosocial. Common medical problems include cardiovascular, musculoskeletal, visual, and gastrointestinal diseases etc., while common psychosocial problems include impaired memory and intelligence, anxiety, depression, rigidity of outlook, dependency and dissatisfaction with family members, and those related to earning and occupation.[6]

Recent studies in India have revealed some of the health and social problems of the aged. However, some had small sample sizes and were limited to only urban areas, while others with larger samples and were clinic based.[7-9] Some are done from institution.[10] But any study conducted by a family physician (often called as general physician) is rare to see. In the era of super specialist practice, people often find it frustrating when their small health-related questions are not answered by the 'specialist' treating doctors, so they have to visit multiple health care providers. This is more difficult for older persons with multiple health issues. People want solutions which only family physicians can provide, who are capable of providing a generalized care.[11] In our social structure family physician has a great significance and they are very intimate to those family members. They gain the faith in terms of dependability, so people not only consult health related problems with them but various other personal problems also. Therefore the data collected in this study is more genuine, which is never possible on an institutional survey where most morbidity was elicited by simple questions, self-reporting and clinical examination, without confirmation by sophisticated laboratory tests or other costly investigations. In those studies the respondents may hide/ feel shy to disclose personal matter in front of a new comer. This may underestimate the morbidity and other social issues. The present study explored the health problems of the elderly among different age groups belonging to different socio-economic status who lived in urban areas with a view not only to identify some of the health and social issues but also to determine whether there is any variation in gender and difference in marital status.

METHODS

Pilot study

A pilot study was carried out over a period of 1 month with the questionnaire which was developed by reviewing related Indian studies. Data was collected from ten elderly individuals and the necessary changes regarding ambiguities in the questionnaire were resolved.

Selection of study site and subject

This study was conducted in the extended urban area of Kolkata. The household selected randomly, where the present author is the family physician and which is having one or more (husband and wife) elderly person. In the household where there are more than one elderly persons who are directly blood related (sibling or offspring), only one participant selected (randomly) among them to avoid hereditary misrepresentation of data. This study was conducted among 208 elderly persons who have resided in the study area for at least one year. The survey was done by house to house visit. Data collection was done from January 2016 to December 2016. All participants of both genders were interviewed after taking informed consent. In case of any difficulty in communication with the particular elderly person, help of other family members was taken. Presence of morbidity was elicited by self-reporting, supplemented by history, clinical examination and scrutiny of relevant medical documents, if present. Respondents newly detected with any medical condition were advised as required.

Study topics

Interview were done on the following topics, socio-demographic details (age, sex, religion, marital status, occupation, education, type of family, and living arrangements), self-reported medical information (chief complaint, past history, personal history and family history), general physical examination (built, nutrition, general mental status, height, weight, pulse rate, respiratory rate, blood pressure, pallor, and pedal edema), systemic examination (respiratory system, cardio vascular system, central nervous system, gastro-intestinal system, musculoskeletal, renal, skin, oral and special senses), functional status, social problems and environmental data.

Data entry and statistical analysis

Data were entered in a Microsoft Excel file and statistical analysis is carried out using SPSS Version 20. To estimate the prevalence of various health conditions of geriatric population, appropriate proportion (%) is worked out. Socio-economic status of the family was

assessed using Modified Kuppuswamy's method of socioeconomic scale (Table 1).[12] Continuous variables were summarized by mean and standard deviation (SD). To test the association of morbidity conditions with socio-economic parameters, statistical tests such as chi-square test, t-test is applied at 5% level of significance were done. Participants were divided in three categories, i.e. 'young-old', 'middle old' and 'very old'.[13]

Table 1: Kuppuswamy socioeconomic scale (Urban, 1976) and its modification (2016).

A. Education			
Sr. No.	Education of head		Score
1	Profession or Honours		7
2	Graduate		6
3	Intermediate or Diploma		5
4	High school certificate		4
5	Middle school certificate		3
6	Primary school certificate		2
7	Illiterate		1
B. Occupation			
Sr. No.	Occupation of head		
1	Profession		10
2	Semi-profession		6
3	Clerical, Shop-owner, Farmer		5
4	Skilled worker		4
5	Semi-skilled worker		3
6	Unskilled worker		2
7	Unemployed		1
C. Family Income/month (in Rs.)			
Sr. No.	In 1976	Updated in 2016	
1	≥2000	≥40,430	12
2	1000--1999	20,210--40,429	10
3	750--999	15,160--20,209	6
4	500--749	10,110--15,159	4
5	300--499	6060--10,109	3
6	101--299	2021--6059	2
7	≤100	≤2020	1
D. Socio-economic class			
Sr. No.	Socio-economic class		
1	Upper		26--29
2	Upper middle		16--25
3	Lower middle		11--15
4	Upper lower		5--10
5	Lower		<5

Data source: Compiled by author from original Kuppuswamy socioeconomic scale (Urban, 1976) and Modified kuppuswamy's socioeconomic scale (Bairwa et al).[12]

Ethical issues

Ethical clearance was taken from local Municipal ethical review committee before conducting the study. Besides, informed consent was taken from each study participant.

RESULTS

In the present study, the males (118, 56.73%) were more in number than females (90, 43.26%) (Figure 1). Majority of the elderly (88, 42.30%) belongs to the age group of 60-69 years, i.e. in the category of the "young-old", followed by 70-79 age group (76, 36.53%), i.e. in the category of the "middle old" and 80+ age-group (44, 21.15%), the "very old". The mean age was 71.23 years with SD±7.90.

Regarding socio-economic status 44% elderly belongs to upper middle class, followed by upper lower (31%) and lower middle (23%) class (Figure 2). Elderly from upper and lower classes were negligible in number. 66 (31.73%) participants declared that they were self-sufficient, while the rest 142 (68.26%) were dependent on others (son/daughter/spouse). Almost half of the elderlies (108, 52%) felt they were not happy in life.

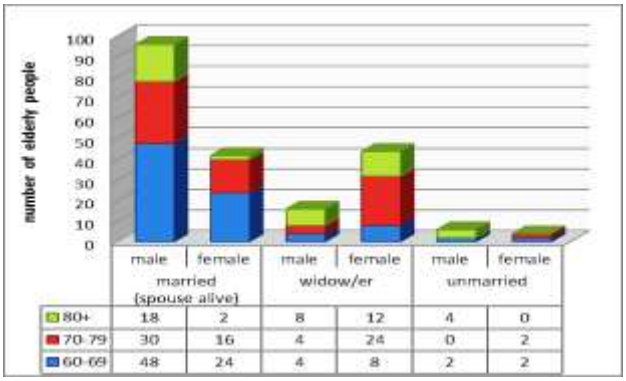

Figure 1: Distribution according to age-group and marital status (n=208).

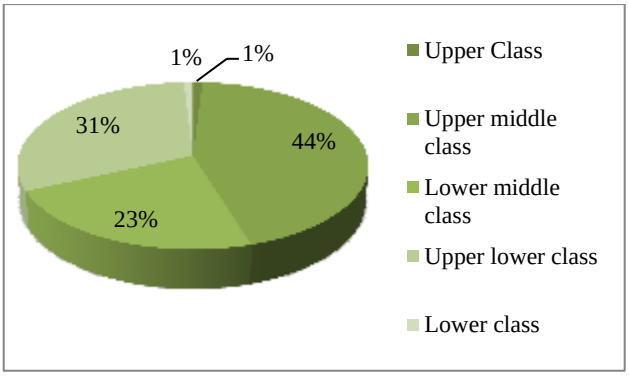

Figure 2: Distribution of study population as per modified Kuppuswamy socio-economic scale (n=208).

Table 2: Distribution of study population as per number of morbidities (n=208).

Age group	No morbidity (%)	Single morbidity (%)	Multiple morbidities (%)	Total
60-69	2 (2.27)	12 (13.63)	74 (84.09)	88
70-79	1 (1.31)	7 (9.21)	68 (89.47)	76
80+	0 (0)	3 (6.81)	41 (93.18)	44
Total	3 (1.44)	22 (10.57)	183 (87.98)	208

Table 3: System wise classification of the morbidities in study population (n=208).

Morbidity pattern	60-69 Yr old (%) (n=88)	70-79 Yr old (%) (n=76)	80+ Yr old (%) (n=44)	Total No. of people (%) (n=208)
Hypertension	53 (60.22)	54 (71.05)	36 (81.81)	143 (68.75)
Eye	68 (77.27)	58 (76.31)	32 (72.72)	158 (75.96)
Ear	26 (29.54)	32 (42.10)	26 (59.09)	84 (40.38)
Cardiac	22 (25)	24 (31.57)	14 (31.81)	60 (28.84)
Gastrointestinal	12 (13.63)	22 (28.94)	10 (2.27)	44 (21.15)
Respiratory	2 (2.27)	8 (10.52)	12 (27.27)	22 (10.57)
Musculo- skeletal	32 (36.36)	36 (47.37)	19 (43.18)	87 (41.42)
Urinary	17 (19.31)	26 (34.21)	20 (45.45)	63 (30.28)
Neuro-Psychiatric	8 (9.09)	16 (21.05)	18 (40.90)	42 (20.19)
Thyroid	4 (4.54)	4 (5.26)	2 (4.54)	10 (4.80)
Diabetes	24 (27.27)	15 (19.73)	10 (22.72)	49 (23.55)
Malignancy	4 (4.54)	0 (0)	0 (0)	4 (1.92)

Most of the elderlies were having multiple morbidities (87.98%). As the age increased the number of morbidities were found to be increasing and this trend of relation with age group was found to be statistically significant at 5% level ($p<0.05$) (Table 2). Visual impairment (mostly problem of refraction) was the commonest problem detected in the studied elderly population with prevalence of 75.96% (158/208). Prevalence of hypertension was 68.75% (143/208). Other significant morbidities seen are musculoskeletal (mostly osteoarthritis), auditory (conductive deafness), urinary (majority in males as prostate problem), cardiac (in most of the cases ischemic heart disease) etc. Diabetes (type 2), neuropsychiatric (mostly dementia) and gastro-intestinal (gastritis and constipation) were other common health problems (Table 3).

DISCUSSION

Regarding physical health of the older adults, our study finding reveals that visual impairment is the most common complaints with prevalence of nearly 76%, which is supported by the result found by Thakur et al, where they found 83% of elderly people is visually impaired.[10] Regarding mental health condition, most of the older people possess a negative approach towards their life, 52% of older adults felt they are not happy in their life. Similar results were reported by Chandwani et al, where around 56% older adults felt they were not happy in life.[5]

Sir James Sterling Ross once commented on aging as "you do not heal old age, you protect it, you promote it

and you extend it".[7] A big issue for current and future Indian elderly people centers on government versus family responsibility for their support. India has a current trend toward nuclear families, instead of the traditional multigenerational family, so the approaches and planning should be motivated to that direction to help the elderly people to lead a healthy aging. There should be a correlation of strategies while dealing with health problems with socio-economic conditions. Awareness generation should be done among the elderly people for regular health check-ups to ensure prevention and early detection of many chronic diseases. At present, most of the geriatric out-patient department (OPD) services are available at tertiary care hospitals. As the health care for older adults was not categorized significantly in every level of health care services, therefore the only response to their emergency health problem seems to be hospitalization. But, it should be mandatory that geriatric health care services be made a part of the primary health care services, and the concerned health care personnel should have been trained in that way to set up special health services for geriatric population in every level, but no significant improvement is visible in this sector till date.

CONCLUSION

The number of elderly population is getting older throughout the world. Health problem has a significant relation with age, so strategies are required to bring about the quality of life in health. Therefore the policy generation and their implementations should be done in conglomeration, which on one hand will protect and promote traditions and values of Indian culture, on the other hand will assure the elders a secured and healthy aging. But, these should be an equal responsibility for individual, family, society and the government.

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