



A Study on Morbidity Profile Among Elderly in A Rural Population of Katihar, Bihar

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ABSTRACT

Introduction:

The elderly are one of the most vulnerable as well as high risk groups in respect to health. Therefore, morbidity pattern in geriatric age group need to be studied so as to formulate effective and proper intervention to improve their health status.

Objectives: The aim was to study the socio demographic profile and pattern of morbidity among the elderly people of Katihar in Bihar, India.

Methods: A Community based cross sectional study was conducted in rural field practice area of Katihar medical college. A total 450 elderly persons residing in the field practice area were included in study period was from Jan 2013 to Dec 2013. A pre-designed, pre-tested semi structured questionnaire was used to collect information and complete clinical examinations were performed among the study subjects. Data was entered in Microsoft excel and analysed by using frequency and proportion.

Results: Out of 450 elderly persons majority (98.6%) had oro-dental problems, followed by vision problems (92.0%), gastrointestinal disorders (86.7%), hearing impairment (72.0%), and hypertension including cardiovascular problems (49.5%), musculoskeletal disorder (38.9%), genitourinary problems (36.0%), obesity (34.9%), anaemia (34.8%) and respiratory disorders (24.2%).

Conclusion: The prevalence of different morbidities among elderly aged 60 years and above was quite high. Therefore special intervention for elderly are needed to be organized at grass root level with integrated comprehensive health care services.

KEYWORDS

Elderly, Morbidity profile, Rural

Introduction:

According to world health statistics 2014, globally around 11% of population is above 60 years of age with 8% of population is above 60 years of age in South East Asian countries including India. [1] The percentage of elderly population in India has increased from 6.0 to 8.3 per cent since 1991 to 2013 with proportion of females to be higher than males. [2] Over the next four decades, India's demographic structure is expected to transform dramatically from a young to an ageing population resulting in 316 million elderly persons by 2050. [3] The increasing healthy ageing population is a both a matter of joy as well as worries. Joy because people are living comparatively healthier and longer lives. Worries are about how to deal with future with a larger older population and their ageing related morbidities. The problems of the aged differ not only between nations but also within nations and between communities. [4] Old age is associated with decline in physical, physiological & cognitive function affecting the quality of life of the elderly population. [5] According to Government of India statistics, cardiovascular disorders account for one-third of elderly mortality. Respiratory disorders account for 10% mortality while infections including tuberculosis account for another 10%. [6] Therefore there is a need to highlight the medical and socio-economic problems that are being most often faced by the elderly p in India and strategies for bringing about an improvement in their overall health status and quality of life also need to be explored. [7] A thorough overview of morbidity among geriatric population is therefore needed to improve the delivery of health care to the elderly. This present study was therefore conducted to study the socio demographic profile and pattern of morbidity in the elderly people of Katihar in Bihar, India.

Material and Methods

Study Setting: The study was conducted in rural field practice area of Katihar medical college.

Study Design: Community- based cross- sectional study.

Study Population: The study subjects were in the age group of 60 years and above and residing in this area were included in the study.

Duration of Study: The study was completed in a period Jan 2013 to Dec 2013.

Sample Size: A total 450 elderly persons were enrolled in the study using multistage sampling and were interviewed using pre-designed, pre-tested and semi-structured questionnaire and complete clinical examinations were performed among the study subjects after taking verbal consent each individual. Specific health condition were assessed by relevant history, general and systemic physical examination.

Data Processing and Analysis: The information collected on the study schedule was transferred on the pre- designed classified tables and analysed according to the aims and objectives.

Results:

Proportions of males were 51.7% and females 48.3%. Thus the sex ratio of our elderly population was 931 females per thousand males. 54.6% people were young old which was the majority and least percentage was of very old 9.1%. A total of 70.3% elderly were found to be illiterate. The illiteracy

rate was higher in females (89%). No females had any formal education. 47.7% males were literate with 24.1% had gone to primary school and beyond. Most of the men were married (83.7%). The percentage of third category (widow and separated) was very high amongst females (58.9%) compared to males (15.02%). 40% females were married and percentage of unmarried people in our elderly population was very low in both groups (1% each). Majority of elderly lived in a joint family (95%) as the average no of people in each family were 12. Only 5% of elderly population lived in a nuclear family (either alone or with their spouse). The percentage of financially independent people in our study group was only 32.8%. The remaining was either fully or partially dependent to others. Dependence to others was more in case of females (86.2%) and only 13.8% were financially independent. 50.7% of the males was financially independent. Most of the people of our study population were in middle and lower middle social status (38.6% and 34.6% respectively). A very small fraction was in upper class (0.8%). A total of 56.4% elderly stayed at home without any occupation remaining 43.4% were involved in some kind of occupation of which 48.1% were males and 38.6% females. In case of males agriculture was the main primary occupation and females depended on small scale business. [Table no. 1]

Normal weight category people were higher among males (54%) whereas more females were overweight (37%) and obese (3.6%) compared to males. 45% females were anaemic compared to 25% males. Majority of people had dental problems of which carries and tooth loss were most common (86.6% and 84.5% females and males respectively). Only 2% females and 6% males used dentures. Majority of subjects suffered from eye problems (92.0%). Refractory error was commonest (46.2%) followed by cataract (27.6%). A total of 6.9% people had multiple other problems. About 28% of subjects had unilateral or bilateral hearing loss. Hypertension was common in study population as both males (42%) and females (48.2%) had high prevalence with females slightly higher. Prevalence of IHD and VHD was very low with IHD more common in males (6.2%). The prevalence of diabetes in our study population was 14% (females 16% and males 12.2%). Thyroid disorders were seen more commonly in females 9% compared to males (4%). A total of 19.5% of study population had COPD, distribution among males (20.1%) and females (18.3%). 4.8% population had past history or active tuberculosis. Acid peptic diseases were very common among subjects affecting 44.3% population, more commonly females (62.1%). Altered bowel habits (diarrhoea/constipation) were more common amongst males (42.2%). About 7.6% of subjects had some type of GI bleed and 3.8% had abdominal hernia. Urinary incontinence was major genito-urinary problem affecting the elderly (22.6%). 8.6% people had recurrent UTI at different times which was more common in females and 4.5% people had other problems like leucoria, vaginal itching, penile and cervical cancers. A total of 22.5% people had arthritis involving single or multiple joints which was more common among females (27.4%). Backache was seen in 14.7% of study population and 1.7% elderly had h/o sustaining fractures after fall. [Table 2]

Discussion:

In the present study, out of 450 subjects majority (98.6%) had oro-dental problems, followed by vision problems (92.0%), gastrointestinal disorders (86.7%), hearing impairment (72.0%), hypertension including cardiovascular problems (49.5%), musculoskeletal disorder (38.9%), genitourinary problems (36.0%), obesity (34.9%), anaemia (34.8%) and respiratory disorders. Jain et.al., opined that poor oral hygiene to be responsible for large fraction of dental problems. [8] Apart from that with respect to other morbidities the results of present study are quite similar to that conducted by Jain et.al., who reported majority (65.3%) of elderly population had hearing impairment, followed by anaemia (62.2%), HTN (46.2%), joint pain (42.3%), dental problems (41.0%), cataract (38.7%), chronic bronchitis (31.9%), APD (27.3%), DM (11%), skin diseases (7.5%), piles (7.2%), BPH (3.7%),

TB (1.0%). [8] Similarly Qadri S et al., reported 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%), about 25.4% were having senile deafness, 22.2% suffered from acid peptic disease, and 9% were diagnosed cases of diabetes mellitus. [9] A study conducted by Kumar R found that prevalence of various morbidities being hypertension (13.12%), arthritis (11.25%), cataract (11.87%), dental problems (4.37%), diabetes mellitus (3.75%), skin problems (3.12%), gastric trouble (1.25%) and piles (0%). [10] Similar to the previous studies cataract was observed to be one of the most common morbidity of eyes. [11,12]. In contrast to present research work, a study conducted by Sharma et al., reported anaemia as the most common morbidity among elderly followed by cataract, hypertension, osteoarthritis, overweight etc. [13] Similar to a study conducted by Chandwani et al., prevalence of arthritis was higher among females. [14]

Limitations:

However, the study was subject to several limitations. Since the study was conducted only in rural field practice area, results may not be generalizable for the whole district. Also since the different morbidities that were assessed among elderly were based on history given by study subjects, self-reporting and simple field investigation without any further laboratory confirmation, some cases might have been missed.

Conclusion:

The present study among elderly in Katihar, Bihar has highlighted a high prevalence of certain morbidities like oro-dental problems, visual impairment, musculoskeletal disorders, hypertension, obesity, and other health related issues. Therefore comprehensive health care services including regular screening programmes, health check-ups should be promoted along with health education to deal with the morbidities among elderly at grass root level. Apart from that behaviour and life style modification through primordial prevention strategies should be carried out to improve the overall health status among elderly.

Table no.1 Distribution of elderly on the basis of bio-social characteristics.

Bio-social characteristics	Gender		Total No (%)
	Male No (%)	Female No (%)	
Age groups (years)			
60-74	132 (56.6%)	114 (52.5%)	246 (54.6%)
75-84	82 (35.1%)	81 (37.3%)	163 (36.3%)
Above 85	19 (8.1%)	22 (10.1%)	41 (9.1%)
Education status			
Illiterate	122 (52.3%)	193 (88.95%)	315 (70.3%)
Literate	55 (23.6%)	24 (11.05%)	79 (17.3%)
Literate with formal education	56 (24.1%)	0 (0.0%)	56 (12.4%)
Marital Status			
Married	166 (71.1%)	87 (40.1%)	252 (56%)
Unmarried	3 (1.1%)	2 (1.1%)	5 (2.1%)
Others (Divorced separated etc.)	65 (27.8%)	128 (58.9%)	193 (42.8%)
Financial dependence			
Independent	118 (50.7%)	30 (13.8%)	148 (32.8%)
Dependent to others	75 (32.2%)	161 (74.1%)	236 (52.5%)
Partially dependent	40 (17.1%)	26 (12.1%)	66 (14.7%)
Occupation			
Agriculture	46 (19.9%)	30 (13.8%)	76 (16.8%)
Small scale business	20 (8.6%)	54 (24.8%)	74 (16.4%)
Others	46 (19.6%)	0 (0.0%)	46 (10.2%)
Unemployed	121 (51.9%)	133 (61.4%)	254 (56.4%)

Table no 2: Distribution of elderly on the basis of morbidities.

Groups	Gender		Total No (%)
	Male No (%)	Female No (%)	
Overweight & Obesity	68 (29.2%)	89 (40.01%)	157 (34.9%)
Anaemia	59(25%)	98 (45%)	157 (34.8%)
Oro-dental problems	Carries/tooth loss	197 (84.5%)	385 (85.5%)
	Edentulous	19 (8.1%)	41 (9.1%)
	Dentures	14 (6%)	18 (4%)
Vision problems	Refractory error	107 (45.9%)	208 (46.2%)
	Cataract	64 (27.5%)	124 (27.6%)
	Others (Presbyopia, tearing, glaucoma etc.)	18 (7.8%)	31 (6.9%)
Hearing problems	58 (24.9%)	68 (31.3%)	324 (72%)
Hypertension & CVS disorders	Hypertension	98 (42%)	202 (44.8%)
	Ischemic heart disease	14(6.2%)	4 (2%)
	Valvular heart disease	2 (0.8%)	3(0.6%)
Endocrine disorders	Diabetes mellitus	28 (12.2%)	63 (14%)
	Thyroid disorders	9(4%)	29 (6.4%)
Respiratory disorders	COPD	27 (11.6%)	47 (10.5%)
	Tuberculosis	14(5.9%)	22 (4.8%)
GI disorders	Acid peptic disorders	65 (27.8%)	199 (44.3%)
	Constipation/diarrhoea	98 (42.2%)	141 (31.4%)
	Haemorrhoids/GI bleed	14 (6.2%)	34(7.6%)
	Abdominal hernia	4 (1.5%)	17 (3.8%)
Genito-urinary disorders	Recurrent UTI	9 (4.2%)	39 (8.6%)
	Urinary incontinence	46 (19.7%)	117 (26%)
	Others	7 (3%)	20 (4.5%)
Musculo-skeletal disorders	Backache	31 (13.1%)	66 (14.7%)
	Arthritis	42(18.1%)	101 (22.5%)
	Fractures	3 (1.1%)	8(1.7%)

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