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Physical Morbidity and Quality of Life among Geriatrics-An Experience from a tertiary Hospital.

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Abstract: *Worldwide there are approximately 385 million geriatric populations, India being the second largest among them. 45% have chronic diseases and disabilities. The challenge of the 21st century is to improve the quality of life in elderly. The objectives were to study the distribution of activities of daily living (ADL) and physical morbidities and to explore the association of selected socio-demographic and lifestyle variables with the quality of life. This hospital based, cross-sectional study was performed on 153 patients aged 60 years & above selected by systematic consecutive sampling from Geriatric O.P.D and I.P.D of Medical College, Kolkata. They were interviewed by a pre-designed, pre-tested schedule and assessed for physical activity by using ADL (Activity of daily living) scores. Hypertension (65.3%), diabetes (47.7%), osteoarthritis (62.7%), visual impairment (55.5%) and hearing impairment (7.8%) were the commonest physical morbidities among study population. 21.7% needed support for walking, 43.8% were economically independent. The ADL score was significantly associated with age and social problem was significantly associated with economic dependency and living with family members. Family counseling for old age care, creation of a viable family and social environment with competent geriatric services will go a long way to improve the quality of life of elderly.*
Key Words: *geriatric, morbidity, ADL, family*

I. Introduction

Geriatrics is a branch of general medicine concerned with clinical, preventive, social and psychological aspect of illness in elderly. In developed countries 65 years and in developing countries 60 years have been accepted as the definition of elderly person.[1] The population aged 60 years and above will grow from 77 million in 2001(7.4%) to 300 million (17%) by 2050 in India. India has the second largest "aged" population in the world; 45% of them have chronic diseases and disabilities.[1] In India the elderly people suffer from both communicable as well as non communicable disease problem. This is further aggravated by impairment of sensory functions like vision and hearing. Age related physiological changes and immunocompromised condition in the elderly make them more vulnerable to chronic, disabling and multiple health problems. Moreover there is economic inadequacy and degradation in family values. A large proportion of geriatric people are living below the poverty line and from the unorganized sector with no social security.[2] Therefore they require a different approach and management. The common diseases among the ambulatory elderly are Hypertension, Cataract, Osteoarthritis, Chronic obstructive pulmonary diseases, Diabetes Mellitus, Benign prostatic hypertrophy, Dyspepsia, Irritable bowel syndrome and Depression which account for 85% of the burden of ill health.[1]Therefore the quality of life is deteriorating among geriatric age group. The greatest challenge of the 21st century will be to improve the quality of life as we age. With this background the present study was done with the following objectives:

1. To study the distribution of activities of daily living (ADL) and physical morbidities.
2. To explore the association of selected socio-demographic and lifestyle variables with the quality of life.

II. Methodology

It was an observational, cross-sectional study conducted among the patients attending Geriatric OPD and IPD of Medical College and Hospital, Kolkata. The duration of the study was 6 months (July 2012- Dec 2012). An inclusion criterion was 60 years and above patients attending Geriatric OPD and IPD in Medical College, Kolkata. Informed verbal consent was taken from each patient before interview. Anonymity and confidentiality of the patients were ensured. Those patients who were unwilling to give consent or seriously ill were excluded from the study. A Predesigned pre-tested semi structured schedule was used for data collection. OARS (Older Americans Resources and Services Program) multidimensional functional questionnaire was used for assessment of the Activities of Daily living (ADL).[3] Excellent ADL means those who can perform all of the Activities of Daily Living without assistance. Mildly impaired are those who need some help for one to three activities, but not necessarily every day. Moderately impaired persons need assistance for at least four Activities

of Daily Living but are able to get through any single day without help. Severely impaired needs help each day but not necessarily throughout the day or night with many of the Activities of Daily Living. Completely impaired ADL capacity means help is needed throughout the day and/or night to carry out the Activities of Daily Living. Interview time took approximately 20 to 25 minutes. Accordingly 8 to 9 patients were interviewed per day by systematic consecutive sampling. Every 2nd patient was interviewed. If the patient was not willing or interviewed earlier then the next patient fulfilling the inclusion criteria was selected. So during the study tenure 157 patients were interviewed. Due to incompleteness of response by 4 patients, finally 153 schedules were used for analysis. Data was tabulated in Microsoft Excel 2010 spread sheet & analyzed by appropriate statistical methods in SPSS 19 software.

III. Results

Maximum proportion of study population i.e. 106 (69.3%) belonged to 60-69 years age group. Male respondents were 83 (54.2%). Urban residents were 117 (76.5%). Among the study population, 24.2% were illiterate & only 12.4% had higher education. Figure 1 highlighted different physical morbidities of the study population. Hypertension (65.4%), diabetes (47.7%), osteoarthritis (62.7%), visual impairment (55.5%), low back pain (56.9%) were the commonest physical morbidities. 35.9% had past history of cataract. Table 1 depicts distribution of study population according to activities of daily living. 30 geriatric patients (19.6%) had impaired activities of daily living (mild-9.8%, moderate-5.23%, severe-4.57%). 12.4% of the study populations were living alone while 56.3% were living with spouse and children (table 2). Among the study population 24.2% were feeling lonely, 18.3% had property problem, 9.2% were destitute and 8.5% had problem with other members (table 3). 56.2% of the study population was economically dependent and 32.7% were addicted to tobacco products. Activities of daily living was significantly associated with age of the study population ($p<0.0001$).Social problem was significantly associated with economic dependency ($p=0.002$) and living with family members ($p=0.0001$). There was also significant association between literacy status and economic dependency ($p=0.001$).

IV. Discussion

This study highlighted the morbidity pattern and quality of life of the elderly patients attending Medical College and Hospital, Kolkata. There was a predominance of male respondents (54.2%), which differs from a study conducted in an outpatient department of Nigeria where female patients outnumbered their male counterparts by 1.7 to 1.[4] This difference may be due to the fact that India is one of the few countries where females are outnumbered by males in geriatric age group and also men visit clinics for more frequently than women. The average number of morbidities (diagnoses) found amongst the study population was 4.3±1.06 with a range from 2 to 7. It was less than those reported from Botswana (5.2 morbidities)[5] and Northern India (6.0 morbidities)[6] but more than in a study conducted in Nigeria.[4] These disparities could be due to the differences in the prevalence of diseases. The prevailing health problems among geriatric people in various studies are hypertension-39-50%, diabetes-13%-21%, visual imparmaent-35-62%, osteoarthritis-21-57 %.[7,8,9] However in our study, the prevalence of hypertension (65.4%), diabetes (47.7%), visual impairment (55.5%), osteoarthritis (62.7%) indicate the lack of adequate care in providing curative services. It may partly be due to the irregularity on the part of elders and partly due to the lack of adequate attention by the family members. The prevalence of hypertension is increasing and has become a major public health problem among the growing elderly population because blood pressure rises with age. About 35.9% of the study population has past history of cataract. Similarly in a study conducted in Nigeria showed that Eye problems were the most commonly diagnosed morbidity amongst the respondents; cataracts accounted for more than three-quarters of the diagnoses.[4] The high prevalence of cataracts (39.4%) amongst the respondents may be attributed to the fact that the diminution of vision is the consequence of ageing. In a study conducted by J. Yeo in Britain showed a significantly positive correlation between increased co-morbidity and poor quality of life ($r=0.45$, $p<0.05$) and negative correlation between co-morbidity and ADL scores ($r=0.54$, $p<0.05$).[10] Similar observation was reported in the present study between co-morbidity and quality of life ($r=0.52$, $p<0.05$).

V. Conclusion

This study highlights the burden of health problems and quality of life among elderly individuals. With increasing number of old people and with radical change of social structure even in the rural area, it is high time that health policy makers take steps to include health programme for the elderly within the purview of the primary health care. Lifelong health education for healthy old age should be given. For the promotion of a positive mindset and to create a feeling of well-being, the elderly people themselves should be encouraged to form old age club and participate in various cultural programs. Provision of visual aids/mobility aids at geriatric health facilities and the availability of physiotherapy services should be ensured. Family counseling for old age

care, creation of a viable family and social environment and competent geriatric services will go a long way to improve the quality of life of elderly.

VI. Tables and Charts

Figure : 1 Bar diagram showing distribution of study population according to present physical morbidity (Multiple response)

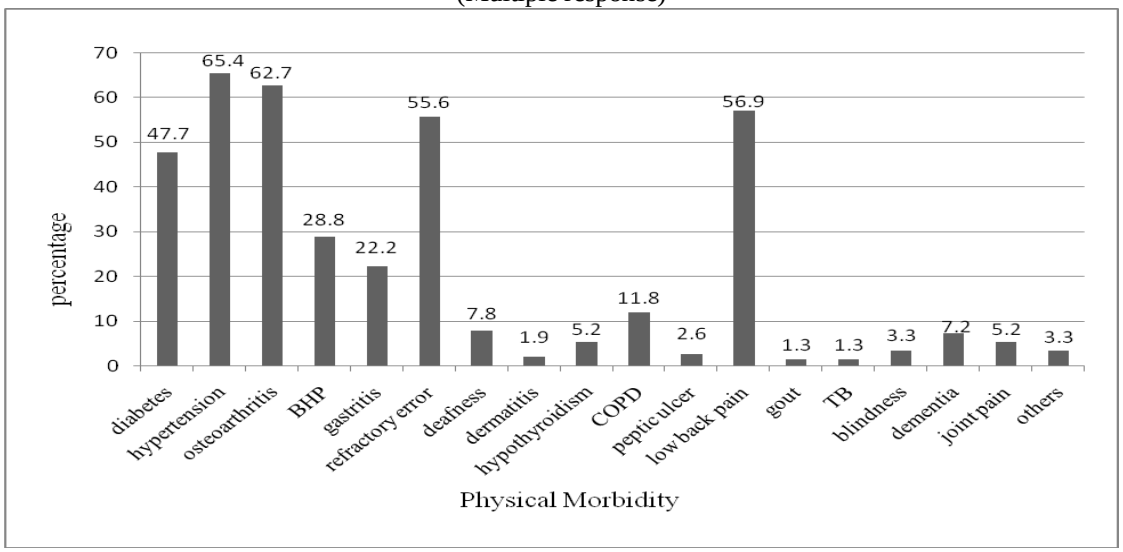

Table 1: Distribution of study population according to Activities of Daily Living (ADL- OARS criteria) (n=153)

Activities of Daily Living	Frequency	Percentage
Excellent ADL capacity	123	80.4
Mildly impaired	15	9.8
Moderately impaired	8	5.2
Severely impaired	7	4.6

Table: 2 Distribution of geriatric patients according to living with family member (n = 153)

Living With	Number	Percentage
Alone	19	12.4
Spouse	12	7.8
Spouse + Unmarried children	34	22.3
Spouse + Married children	52	34.0
Unmarried children	15	9.8
Married children	12	7.8
Others	9	5.9

Table 3: Distribution of geriatric patients according to different social problems (n = 153)*

Social problems	Number	Percentage
Loneliness	37	24.2
Property problem	28	18.3
Destitution	14	9.2
Problem with other members	13	8.5
None	81	52.9

*Multiple responses

Table: 4 Relationship between age group of the study population with Activity of Daily Living (n = 153)

Age group in years	Activity of Daily Living (ADL)				Significance
	Excellent ADL Capacity	Mildly Impaired	Moderately Impaired	Severely Impaired	
60 – 69 (Old)*	84	16	2	4	$\chi^2 = 27.46$ df=6

70 – 79 (Old-Old)*	36	0	4	3	p<0.0001
≥ 80 (Oldest Old)*	2	0	2	0	
Total	122	16	8	7	

* Source: National Policy on Older Persons 1999 GOI

Table No. 5: Association of social problem with economic dependency and living with family members.

(n=153)

Economic dependency And Living with	Any Social problem		Significance
	Present	Absent	
Economic dependency			
Fully dependent (n=73)	43	30	$\chi^2 = 11.85$ df=2 p = 0.002
Partially dependent (n=13)	8	5	
Independent (n=67	21	46	
Living with			
Alone (n=19)	14	5	
Spouse (n=12)	10	2	
Spouse+ unmarried children (n=34)	8	26	$\chi^2 = 26.3$ df=6 p = 0.0001
Spouse+ married children (n=52)	22	30	
Unmarried children (n=15)	4	11	
Married children (n=12)	7	5	
Others (n=9)	7	2	

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