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Need for a Customized Approach towards Geriatric Health Care: A Cross-Sectional Hospital Based Study

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Abstract:

Introduction and Aim: Problems faced by elderly other than disease management, while admitted in hospital, significantly affect the patients and their relatives. The aspect of environmental facilitation for elderly in the wards is seldom taken into consideration. Aim of present study was to assess the socio-demographic and morbidity profile as well as hospital administration parameters for effective planning of geriatric health care services.

Material and Methods: Total 138 elderly in-patients were interviewed using a pre-tested, structured schedule. Observations regarding environmental facilitation for elderly in the hospital were noted. Data was collected and analysed using SPSS software.

Results: 73% of all patients were in age group of 60-69 years old. 90% of the respondents were literate. 87% of the respondents felt that their day to day life is significantly affected by age, family type, attitude of family members and dependency regarding economic as well as social security apart from other co-morbid conditions.

Conclusions: Results highlight the need for dedicated geriatric health care centres which can cater to physical and psychological needs of elderly population. There is a need for measures to increase awareness of social security schemes for elderly and aggressively improving environmental facilitation of hospital infrastructure focussing Geriatric health care.

Key-words: elderly, morbidity, social and health problems

Introduction:

Ageing is a natural phenomenon. It is a vulnerable phase of life where not only physical and mental but, social disruption is pronounced.¹ As per Seneca, “Old age is incurable disease”, whereas in the words of Sir James Sterling Ross, “You do not heal old age. You protect it, you promote it: you extend it”.² India is undergoing health transition, both an epidemiologic as well as demographic. Over the years the average life expectancy of Indians has increased.³ India has thus acquired the label of "an ageing nation" as per the classification of United Nations. There are about 149 million elderly people aged 60 years and above in the country in 2022 which constitutes around 10.5% of Indian population. As per the estimates given by UNFPA, by the year 2050 there will be almost 347 million of elderly in India, which will be about 20% of the country's total population.⁴

The elderly experience changes in not only physiological but several other aspects of their lives. The physiological decline, change in socio-economic status, loss of earning power and social recognition. All this leading to low self-esteem.⁵ Though India has acquired the label of "an ageing nation", the institutional social safety nets for the elderly are extremely inadequate.⁶ In Indian society cultural values and family network is the major source of psycho-social support, and it assumes greater significance for the elderly. But recently because of urbanisation, modernization, migration, and dual career nuclear families care of the elderly has become an important emerging personal and social problem in India.⁷⁻⁹

Utilisation of healthcare services for the elderly is subjected to availability, accessibility and affordability which is another issue to be focused on. Some past researches have shown that health seeking behaviour differed by the place of residence, with more use of public health facility in rural areas as compared to urban areas.¹⁰ Health status of elderly in India is impacted due to lack of health infrastructure in rural areas, poverty, inaccessibility and lack of trained professionals.^{11,12}

Many studies in abroad and India have tried to understand various aspects of geriatric health care seeking, disease profile, barriers to access and other relevant parameters. However one point needs to be highlighted that most of these studies are community based, while the present study is hospital based. There are very few studies from India addressing the environmental facilitation issues with respect to the geriatric patients and the Hospital set up. This study was thus conducted, keeping in mind the following objectives:

1. To study the social and health problems faced by the inpatient elderly and their attitude towards life in rural areas surrounding Mumbai.

2. To study the environmental facilitation issues faced by the admitted Geriatric patients in the Hospital.

Material and Methods:

A cross-sectional study was carried out in Cardinal Gracias Memorial Hospital, Vasai, a community based private tertiary health care centre located in rural areas around Mumbai. Study was carried out in the second semester of 2023 for a period of 4 months during September to December 2023. The study participants were elderly males and females aged 60 years and above who were admitted in inpatient wards of the Hospital for various health problems. Study participants less than 60 years of age and not willing to consent, were excluded. Random sampling of patients was done using the hospital in-patient list.

Data collection tool and Procedure: Data collection was done using a structured, pre-tested questionnaire. The questionnaire was developed by reviewing related studies.^{5, 7-11} Pilot testing of this questionnaire was carried out on 20 elderly individuals and the necessary changes were made and then finally adopted for the present study. A total of 138 subjects were interviewed using this pre-tested questionnaire by a trained health educator. The interview was carried out in the local language or in the language comfortable for the patient (Marathi/Hindi/English). The objectives of the study were explained to them and informed consent was undertaken. Privacy and confidentiality of the interview was ensured. To avoid the interference and influence of other family members and relatives, each respondent was called and interviewed privately where he/she could feel safe and comfortable.

Data Analysis: The data collected was entered into MS Excel, tabulated and analysed using the SPSS statistics version 27. Results were described as observations or expressed in the form of proportions and percentages.

Ethical considerations: Necessary permissions and ethical clearance were obtained from Institutional Ethical Committee (IEC No. 16/2023). Informed consent was obtained from all the participants and confidentiality of the interview was ensured and the data was anonymised.

Results:

Out of the total 138 respondents 78 (56.5%) were males and 60 (43.5%) were females. Table 1 shows that almost 45% of the population was in the age group of 60-64 years old, whereas a small fraction (4.3%) were 80 years old or older. 5.1% of the elderly men were widowed while 10% of the women were widowed. The unmarried group comprises of 4.3% of the study sample

size. 46.4% of the respondents were Hindus and 42.0% were Christians. Around 54% respondents were living in joint family.

Table 1 - Socio-demographic characteristics of the respondents:

	Males (n=78)	Females (n=60)	Total (n=138)
Age (years)			
60-64	32 (41.0%)	30 (50.0%)	62 (44.9%)
65-69	20 (25.6%)	18 (30.0%)	38 (27.5%)
70-74	12 (15.4%)	06 (10.0%)	18 (13.0%)
75-79	12 (15.4%)	02 (3.3%)	14 (10.1%)
80-84	02 (2.6%)	02 (3.3%)	04 (2.9%)
85-89	Nil	02 (3.3%)	02 (1.4%)
Marital status			
Married	52 (66.7%)	38 (63.3%)	90 (65.2%)
Divorced/separated	18 (23.1%)	14 (23.3%)	32 (23.2%)
Widowed	04 (5.1%)	06 (10%)	10 (7.2%)
Unmarried	04 (5.1%)	02 (3.3%)	06 (4.3%)
Education			
Illiterate	06 (7.7%)	08 (13.3%)	14 (10.1%)
Primary	08 (10.3%)	11 (18.3%)	19 (13.8%)
High school	17 (21.8%)	18 (30.0%)	35 (25.4%)
Graduate	31 (39.7%)	14 (23.3%)	45 (32.6%)
Post graduate	16 (20.5%)	09 (15.0%)	25 (18.1%)
Religion			
Hindu	34 (43.6%)	30 (50.0%)	64 (46.4%)
Christian	34 (43.6%)	24 (40.0%)	58 (42.0%)
Muslim	08 (10.3%)	02 (3.3%)	10 (7.2%)
Others	02 (2.6%)	04 (6.7%)	06 (4.3%)
Type of Family			

Nuclear Family	25 (32.1%)	23 (38.3%)	48 (34.8%)
Joint family	42 (53.8%)	28 (46.7%)	70 (50.7%)
Living alone	05 (6.4%)	03 (5.0%)	08 (5.8%)
Old age homes	05 (6.4%)	06 (10.0%)	11 (8.0%)
Others	01 (1.3%)	00 (0.0%)	01 (0.7%)

Table – 2 Morbidity pattern of respondents

Diseases	Males (n = 78)	Females (n = 60)	Total (n=138)
Ischaemic Heart Disease	14	05	19 (13.8%)
Hypertension	04	04	08 (5.8%)
COPD	12	04	16 (11.6%)
Infectious diseases	06	08	14 (10.1%)
Anaemia	04	04	08 (5.8%)
BPH	08	NA	08 (5.8%)
Cancer	02	04	06 (4.3%)
Skin disorders	06	01	07 (5.1%)
Diabetes Mellitus	02	04	06 (4.3%)
Psychiatric disorders	04	02	06 (4.3%)
Haemorrhoids	04	04	08 (5.8%)
Gynaecological disorders	NA	09	09 (6.5%)
Cataract	02	02	04 (2.9%)
Stroke	02	02	04 (2.9%)
Osteoarthritis	02	02	04 (2.9%)
Fractures	02	05	07 (5.1%)
Snake bite	04	00	04 (2.9%)
Total	78	60	138

Since all the respondents were from in-patient department, all had health problems. Most of them had more than one health issue. The most common reason for admission was Ischaemic heart disease. Chronic obstructive airway diseases (COPD), Infectious diseases, Gynaecological disorder/BPH and Haemorrhoids were other common reasons for admission.

Table – 3: Distribution of the respondents in different in-patient wards of the hospital

Ward to which admitted	Males (n = 78)	Females (n = 60)	Total (n=138)
Medicine	44	24	68 (49.3%)
Surgery	16	12	28 (20.3%)
Orthopaedics	06	10	16 (11.6%)
Psychiatry	04	02	06 (4.3%)
Skin	06	00	06 (4.3%)
Gynaecology	00	10	10 (7.2%)
Ophthalmology	02	02	04 (2.9%)
Total	78	60	138

Table – 4: Attitudes towards old age

	Males (n = 78)	Females (n = 60)	Total (n=138)
Old age has affected day to day life	68	52	120 (86.9%)
To some extent	16	18	34 (24.6%)
Completely	52	34	86 (62.3%)
Feel neglected by family members	42	33	75 (54.3%)
Always	17	14	31 (22.5%)
Sometimes	25	19	44 (31.8%)
Feel a burden to family	44	38	82 (59.4%)

Table – 4 shows the perception of the respondents towards old age and towards the behaviour of family members. Among these, 62.3% felt that their daily activities are completely affected due to old age. 54.3% respondents perceived a feeling of neglect by family members, while 59.4% felt that they are a burden to their family.

Table – 5: Perception of elderly regarding economic and social security

Perceptions regarding social security	Males (n=78)	Females (n=60)	Total (n=138)
Deprived finances	54 (69.2%)	14 (23.3%)	68 (43.9%)
Deprived of companions	26 (33.3%)	18 (30%)	44 (31.9%)
Feeling of insecurity	14 (17.9%)	26 (43.3%)	40 (29.9%)
Source of financial support			
Pension	32 (41.0%)	16 (26.7%)	48 (34.8%)
Children	40 (51.3%)	46 (76.7%)	86 (62.3%)
Other Family support	14 (17.9%)	06 (10.0%)	20 (14.5%)
Savings done earlier	26 (33.3%)	10 (16.7%)	36 (26.1%)
Old age home /NGO /Others	14 (17.9%)	18 (30.0%)	32 (23.2%)
Insurance status in elderly patients			
Insured	22 (28.2%)	22 (36.7%)	44 (31.9%)
Non - Insured	56 (71.8%)	38 (63.3 %)	94 (68.1%)

Table – 5 shows perception regarding economic and social security. Approximately 30% of the respondents interviewed carries feelings of insecurity and 43.9% were deprived financially. Only around 31.9% were insured financially. Most of the participants had more than one source of financial support. Around one third of the participants were aware of the geriatric welfare schemes for the elderly and only one fifth had utilized these government welfare services till now.

Table - 6: Reasons for feeling sad

Reason for feeling sad	Males (n = 78)	Females (n = 60)	Total (n=138)
Poverty	24 (30.8%)	16 (26.7%)	40 (29.0%)
Illness	54 (69.2%)	50 (83.3%)	104 (75.4%)
Neglected	40 (51.3%)	30 (50.0%)	70 (50.7%)
Loss of spouse	06 (7.7%)	06 (10.0%)	12 (8.7%)

Loneliness	28 (35.9%)	22 (36.7%)	50 (36.2%)
Unmarried daughters	18 (23.1%)	26 (43.3%)	44 (31.9%)
Alcoholic son/son-in-law	22 (28.2%)	30 (50.0%)	52 (37.7%)
Loss Of children	10 (12.8%)	06 (10.0%)	16 (11.6%)
Others	12 (15.4%)	08 (13.3%)	20 (14.5%)

Table – 6 shows that the main reasons for feeling of sadness among respondents were their illness (75.4%) followed by feelings of neglect (50.7%), alcoholic son/son in law (37.7%), loneliness (36.2%), unwed daughters (31.9%) and poverty (29%).

Table – 7: Observations about the Hospital Buildings and environmental facilitation:

Site	Positive Observation	Negative Observation
1. Entrance and commutation within the hospital	Walking ramp at entrance	Different floors of the building are not connected with the ramp
	Two lifts with battery back-up available for relatives and shifting patients.	Lift attendant assistance is available only during the day.
	Different sections and buildings are well connected at every floor.	
	Special provision of covered ramp to protect from sun and rain while shifting the patients for CT and MRI in adjacent building.	
2. Electricity and Lighting	Lightings were adequate and piano pattern buttons are used	Piano pattern buttons are not colour coded
	Concealed wiring was used	

3. Corridors	Lighting was adequate during evening as well as night hours.	Anti-slip tiles are not used. Support railings not available.
4. Staircase	Stairs were well lit	Anti-slip tiles and coir was not available
		Support railings are not installed.
5. Bathroom	Two way locking system for doors	Easy dexterity plumbing was not installed
	Anti-slip tiles were present	Call bells/alarm switches were not set up in the bathrooms
		Support railings were not present in all the bathrooms
6. OPD	Geriatric patients were given preference for case paper registration, wound care, dressings, pharmacy and billing.	Separate Geriatric OPD does not exist
7. Geriatric pharmacological care	Special drug dispensing cards and drug administration records for geriatric patients, particularly in post- operative, ICU and psychiatric ward setting	
8. Dietary services	Hospital dietician supervised the dietary plan for the geriatric patients	
	Special care of nutrition was taken during post-operative and special circumstances like burns, gastroenteritis, etc.	

9. Physiotherapy	Special physiotherapy schedule was followed by geriatric patients	
10. Rehabilitation and post-discharge care	A special team of resident doctor, nurses, dietician and counsellors planned and administered the rehabilitation and post-discharge care knowledge sessions to the relatives of elderly patients	

Discussion:

In our study it was found that in the study population the maximum percentage of admitted elderly were in the age group of 60-64 years (44.9%). Least percentage of aged population was noted in the age group of 80 and above. Percentage of males (56.5%) was more as compared to the females (43.5%). Similar observations were noted by Ruchi Tripathi et al¹³, where maximum elderly in-patients were in the age group of 62-64 years. Our finding of percentage of males admitted in the hospital which is higher than females is similar to Mahesh Shinde et al¹⁴ and this may indicate the health care seeking behaviour, which can have a gender bias. A study by Rajan and Sreerupa showed that elderly females faced many barriers while seeking health care than males.¹⁵

Almost more than half of the respondents who were interviewed were from joint families (50.7%), while 34.8% were from a nuclear family which is similar to the findings of various other studies.^{16,17} Since the study area was surrounding Mumbai where rural area is overlapped with sub-urban, where there is less social migration of the youngsters which may have resulted into the higher prevalence of joint families as compared to the cities. The proportion of elderly married were found to be similar to the other studies carried out, but the proportion of widowed is less and the proportion of unmarried and divorced/separated elderly is more as compared to other studies.¹⁸⁻²⁰ This may be because our study population is hospital based, whereas others have mentioned community based data. Another reason can be the religion of study population. In our study 46% of the respondents were Hindus and 42% were Christians. This reflects the demography of the population based on the religion at the local level which is in contrast to the national level.

According to 2011 census 63% of the elderly were illiterate in India. Our study in contrast showed that only 10% of our respondents were illiterate and 13.8% had education upto the primary level and rest were educated above higher secondary level. The higher rate of literacy status may be attributed to the area being sub-urban and dominance of Christians in respondents. Swapnil J et al¹⁸ have reported 55% illiteracy at Nanded, while illiteracy rate was 57.8% in a study conducted in rural Karnataka by George et al¹⁹. It is observed in this study that illiteracy is higher among females (13.3%) than males (7.7%). More than half (54%) of the elderly felt neglected by the family members which is in concordance with the study conducted by Lena A et al⁵ in Mangalore but, unlike the studies conducted by Prianka et al²¹ which reported lower levels of feeling of neglect (32.9%) but, overall 44% of elderly people face abuse. This feeling of neglect may be because most of these elderly could not participate in the social functions and does not have much of the social connectivity and interaction except at home. Most of them have a perception that people don't respect them because they are not earning and cannot contribute much for the family and society.

Many of the elderly patients (44%) felt that they are deprived of finances and there is a feeling of economic insecurity in almost 30% elderly patients, more being in females (43%) as compared to males (17.9%). This may be because as many as 62% of these elderly subjects are dependent on their children for financial support and percentage of females (76.7%) being more than males (51.3%). These findings are similar to the findings of Ranjan and Muraleedharan²². Most of the elderly patients carried feelings of sadness due to various reasons. There were more than one reason for these feelings in them. The main reason for feelings of sadness was illness (75%) followed by feeling of neglect by the family members (50.7%) and then by alcoholic son/son-in-law (37.7%) and loneliness (36.2%). Our findings were similar to Abu Hasan Sarkar¹⁷ but unlike of some of the older studies^{23,24} where the main reason for feeling sad was loneliness, followed by neglect in the family, illness, and economic causes. These differences could be due to the study settings being a tertiary health-care centre instead of community settings.

A lot of significant shortcomings are observed on the aspect of environmental facilitation of the elderly in the hospital set-up. There is a lot of scope for improvement of the infrastructure and facilities keeping elderly in mind. Simple infrastructure modification particularly by setting up a separate geriatric ward can be an easy option instead of disturbing the whole hospital setup.

This study has tried to study socio-demographic and economic factors as well as attitude of in-patient elderly population towards their quality of life. The results of our study showed that a

significant proportion of the elderly were occupied with feeling of sadness due to their illness, felt neglected and deprived of finances and partial or total dependency on others. There are numerous studies on this aspect in community settings. But, to the best of our knowledge this study is one of its kind in assessing the burden of these socio-economic and demographic aspects in elderly IPD patients admitted in a tertiary care centre instead of community set-up in rural India.

The study has its limitations, as we have not used any scoring system for attitude because the focus of the study was just to assess the burden of such issues among the subjects and not to quantify the attitudes and grade the subjects. Since the subjects included in the study were in-patients admitted with various health problems, the study findings cannot be generalized to the community at large.

Conclusions:

There is a growing need for interventions to ensure the health of this vulnerable group and to create a policy to meet the care and needs of the disabled elderly. This study highlights the need for a dedicated geriatric healthcare facility with strong socio-economic and ergonomic infrastructure under the umbrella of a tertiary healthcare centre, especially in rural areas. The need for dedicated psychosocial support system for the elderly can be met through these kinds of peripheral centres to improve the outcome. Further research, especially qualitative research, is needed to explore the depth of the problem and to amplify the corrective measures in our ageing nation.

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