ORIGINAL ARTICLE

A comparative study on treatment seeking behaviour of geriatric population in rural and urban areas of district Kanpur, Uttar Pradesh

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Abstract

Background: Aging is a complex and universal life process. Treatment seeking behaviour in elderly is affected by socio-economic factors and by affordability, availability and accessibility of healthcare. **Objectives**: To study treatment-seeking behaviour of the study subjects. To compare treatment seeking behaviour among rural and urban study subjects. **Methods**: This was a cross-sectional study conducted in the Kanpur district. Selection of villages in rural and mohallas in urban areas was done using a multistage random sampling technique. A total of 600 subjects were studied, including 400 from urban areas and 200 from rural areas. Elderly persons>60 years of age, both males and females were included in the study. **Results**: Overall, out of 600 study subjects, 59.8% were taking treatment in rural areas and in urban areas 77.6% were taking treatment. In urban areas, more females availed treatment compared to rural areas. Majority of study subjects (56.5%) sought treatment from a government hospital. Only 36% subjects had health insurance. **Conclusion**: In Urban areas more subjects availed treatment as compared to rural areas. Majority of subjects sought treatment from government health facilities. Lack of financial support and long waiting time were major reasons for not availing health care.

Keywords

Treatment Seeking; Geriatric; Allopathic; Insurance

Introduction

Aging is that process of life which is complicated and inevitable.(1) It is a progressive, generalized decline of functioning of body parts leading to loss of adaption to stress and risk of age-related illnesses.(2) Biologically, Aging is the result of accumulation of cellular damage over a long period of time, leading to a gradual reduction of physiological function of an individual and therefore increases the risk of diseases and finally leads to death.(3)

Treatment-seeking behaviour of elderly involves several social-economic factors and inequalities in health care.(4) It has been stated that health-seeking behaviour depends upon basic tenets of affordability, availability and accessibility of healthcare. Health care awareness of the people, the responsiveness of health care service providers, fees incurred during health care procedures and long waiting time to get treatment. (5) Treatment seeking behavior depends on gender, age, educational status, income and occupation.

Treatment seeking behaviour refers to the activities of individuals in response to ill-health. Generally, elderly patients do not seek health care for their condition. Exclusive geriatric health care in India is a dream even today as there is a lack of specialized manpower and the paucity of infrastructure beyond.

Aims & Objectives

The current study has been planned to determine the pattern of treatment seeking behaviour and to compare it in rural and urban areas of Kanpur District.

Material & Methods

Presents study was cross-sectional, study conducted amongst the geriatric population (60 years and above) living in rural and urban areas of Kanpur district. The prevalence of morbidity in the elderly was taken as 15% as per study results obtained from study by **Kumar V et al** Study on morbidity pattern and health-seeking behaviour in the rural area of District Barabanki, India. Int J Med sce. & Public health 2020;5: -223

The minimum sample size was calculated using following formula:

Minimum sample size = $\frac{4pq}{d2}$ where P=prevalence, q= (100-p), d= margin of error which has been taken as 20 % relative to prevalence.

= 566

A total of 600 subjects were studied, including 400 from Kanpur's urban areas and 200 from the rural areas. as 2/3rd population (3015645) is residing in urban areas and 1/3rd population (1565623) is residing in rural areas of Kanpur district. as sample must be true representative of population we select population proportion to size (PPS).

Methodology: Selection of villages in rural regions and mohallas in urban areas was done using multistage random sampling technique.

Two rural blocks, Kalyanpur and Shivrajpur were randomly selected from the list of 10 rural blocks via lottery methods and further 5 villages were randomly selected from each block. A door-to-door survey was continued till the required sample size of 200 was obtained. The total of 20 participants were recruited from each village of both the blocks by systematic random sampling.

After applying simple random sampling, out of 120 urban wards, four wards (Arya Nagar, Vijay Nagar, Kaka Dev, Navabganj) were selected out of which five Mohallas via lottery methods were selected from each ward for selecting the required sample size for urban (400). After conducting a door-to-door survey a total of 20 participants were included from each mohalla in all the four wards by systematic random sampling. Thus, a total of 200 participants from rural and 400 participants were included in the study

Criteria of Inclusion

- Study subjects aged 60 years and above.
- Study subjects residing in Kanpur for at least 6 months.

Criteria of Inclusion

- Seriously ill study subjects not included in study

Data collection tools:

A semi structured questionnaire was used to collect data. Data was gathered regarding demographic details and health-seeking behaviour. **Demographic profile included** age, sex, religion, Education status, Socioeconomic status, marital status, type of family, smoking habit, tobacco chewing, alcohol consumption and **treatment seeking behaviour included** treatment seeking, type of treatment used, type of facility use, any health insurance coverage and reason for not taking treatment.

Ethical Clearance: Ethical clearance was taken from institutional Ethics Committee of G.S.V.M. Medical College, Kanpur. Informed written consent was taken from the study subjects. Ref No-EC/296/Dec/2021 dated 17/12/2021.

Statistical analysis: Data were entered into Microsoft Excel, and analyzed using SPSS software version 24, IBM statistics Chicago, USA. Categorical variables were analyzed using Percentages and chi-square test, p value <0.05 was taken as significant.

Results

Sample size of 600 subjects was studied, of which 200 subjects were from rural areas and 400 from urban areas. Majority of the elderly that is 52.7% were found in the age group of 60-65 years followed by 25.7% in 66-70 years age group. (Table 1) Majority 59% of the study participants were males. 81.3% of study subjects were Hindu, 48.5% belong to OBC caste and majority 29% were illiterate. According to the modified BG Prasad Classification 2020, 34.3 percent of study participants had a socioeconomic status of class II. Most of study subjects were married i.e 74.5%. It was also seen that 83% participants resided in a joint family. 70.2% were smokers, 61.8% were tobacco chewers and 74.3% were alcoholics.

(Table 2) In rural areas, 59.8% study subjects were taking treatment and in urban areas 77.6% were taking treatment. In rural and urban areas, there was a statistically significant difference in treatment seeking (p<0.05). In rural areas, 27.8% females had availed treatment while in urban areas 53.0% females availed treatment. Difference in treatment received by women in rural and urban areas was statistically significant. In rural areas, 85.5% of study subjects were accompanied by family members and in urban areas, 70.3% were accompanied by their family. Study subjects accompanied by family member was significantly high in rural areas as compared to urban areas.

Majority of study subjects 56.5% sought treatment from government hospitals, followed by 22.4% who sought treatment from private hospitals, 16.9% sought treatment from a pharmacist and only 4.1% sought treatment from quacks. (Table 3) In rural areas, 63.8% study subjects taking treatment from government health centre while in urban areas only 53.4% study subjects taking treatment from government hospitals. Overall, majority of participants (95.6%) received allopathic treatment, 2.0% received traditional medicine, 1.5 percent received Ayurvedic treatment, and 0.9 percent received

homeopathic treatment. In the rural area, 93.3 percent of study participants sought treatment from an allopathic facility, whereas in the urban areas, 96.6 percent sought treatment from an allopathic facility.

Out of 600 study subjects, only 36% subjects had health insurance, out of insured persons, 16.7 % study subjects having family floater health scheme, 8.5% having critical illness insurance scheme, 6.8% study subjects having individual health insurance and least 4.5% study subjects having senior citizen health insurance plane. (Table 4) In rural areas, 25.5% study subjects had health insurance while in urban areas 41.3% study subjects had health insurance.

(Table 5) Out of 129 subjects not seeking treatment, majority of study subjects (22.4%) believe that disease is due to age, followed by 20.9% study subjects who were not taking treatment due to crowding in hospital, 19.4% subjects not taking treatment due to lack of money and least (5.4%) study subjects trusted on God for healing. In rural areas 28.3% study subjects and in urban areas 13.9% study subjects not taking treatment due to lack of money.

Discussion

In our study, elderly were predominantly (52.7 percent) in the 60-65 years age group followed by 25.7 percent in 66-70 year age group and at least 4.3 percent in ages 80 years and above. A research conducted in Kamrup, Assam by Hakmaosa A et al(6) discovered a similar tendency in age distribution, with the majority of the elderly (68.5%) belonged to the 60-69 year age group, 24.4 percent to the 70-79 year age group, and only 7.2 percent to the 80 year age group above. Sharma D et al(7) in their study conducted in Shimla observed similar finding that 58.5% belonged in the age group of 60-69 years. In present study majority (81.3%) study subjects were Hindus. A similar finding was observed in Kumar V et al(1) cross-sectional study held in Barabanki where in the majority 72.5% of the elderly population was Hindu. In our study, most of the study subjects (74.5%) were married followed by 23.5% who were divorced/separated/widowed and the least member of study subjects (2.0%) were unmarried. A similar results have been reported by Kumar V et al(8) (2019) in study held in Barabanki showed that 70% of study subjects were married and 26% study subjects were widows/ widowers. In our study 25.7% were alcohol addicts. Almost similar finding was found in a study by Singh P et al (8), who showed that 19.3 percent of subjects consumed alcohol. However, in a study by Karmakar N et al(2) majority of study subjects (12.7%) were alcoholic.

The Present study showed that 59.8% study subjects in rural and 77.6% in urban areas availed treatment, and overall, 72.7% study subjects availing treatment. A study by Gnanasabai G et al(9) showed that 81.1 % study subjects were taking treatment. In Our study 27.8% females in rural areas and 53.0% females in urban areas availed treatment. A study by Barua K et al(3) in urban areas of Assam showed 41.8% females availed treatment in urban areas. The reason may be that women empowerment, women's education and easy accessibility of health services in Assam in urban areas as compared to rural areas.

In our study majority 95.6% of study subjects received allopathic treatment. Barua k et al(3) conducted a study in Assam indicated that 51.8 percent study participants preferred allopathic therapy for their ailment, 37.8 percent study subjects used both allopathic and AYUSH medication. In the present study, in rural areas, 68.8% of study subjects took treatment from Government hospitals and in urban areas, 53.4 percent of study participants received treatment from government hospitals. A study conducted by Sharma D et al(7) in Shimla observed that 60.7% of study subjects sought treatment from a government hospital. Kumar V et al (1) also observed that 65.4% sought treatment from government facilities. The reason is that the most common source of healthcare in India are government health facilities. In study by Warbhe P et al(10) conducted in Mumbai, revealed 54.2 percent of patients went to UHC for treatment and 78.6 percent went to GOVT/BMC hospitals for treatment. Singh T et al(11) conducted a study in Delhi and also found that the majority 48.1% preferred government facility.

In our study, in rural areas 25.5% were medically insured and in urban areas 41.3% study subjects were medically insured. Similarly Gupta E et al(12). Observed that 27% study subjects were medically insured. More study subjects are insured in urban areas could be due to greater awareness, high education status and high motivation. Our study showed that majority of study subjects (22.4%) were not taking treatment because they were that feeling the disease is due to age followed by 20.9% who were not taking treatment because of huge crowding in hospital and 19.4% were not taking treatment due to lack of money. overall 19.4% not taking treatment due lack of money. In rural areas 28.3% study subjects were not taking treatment due lack of money. However, Srivastav A et al(13) observed that in rural areas majority of the study subjects 60% were not taking treatment due to lake of money. Treatment seeking behaviour is not solely influenced by an individual's choice or circumstances; it is also influenced by the dynamics of communities that have an impact on the individual well-being.

One limitation of the study was that the information provided was based on recall memory which may involve recall bias. Due to COVID 19 pandemic, some subjects refused to participate in the study

In conclusion, utilization of health services for the elderly was better in urban areas as compared to rural areas. This implies that there is greater awareness regarding health services in urban areas. Majority of study subjects sought treatment from government hospitals, therefore health system strengthening is the need of the hour in both urban and rural areas. Emphasis must be laid on

implementation of geriatric health care programmes at primary care level with commencement of geriatric OPDs. Since one of the reasons for not seeking treatment by the elderly is long waiting time, development of separate OPDs for the geriatric population and patient-friendly environment will helpful in improvement of utilization of health services in the geriatric population. Lack of financial support is also a major hindrance so strengthening health insurance schemes for the geriatric population will also be useful to enable the geriatric population to seek health care services.

Conclusion

In this study we found that elderly residing in urban area availed more treatment as compare to rural areas. In Urban areas Majority of male availed treatment as compare to rural area while in rural area most of female availed treatment. Majority of study subjects had cordial relation with family. While in rural areas more study subjects had cordial relation as compare to urban areas. Majority of elderly preferred allopathic treatment and from Government hospital.

Recommendation

Strengthening of AYUSH Facility as most of the rural population reaching at that facility for the seek of treatment. We can maintain and improve our allopathy system. Sensitization of people for availing insurance services to reduce the financial burden. We should aware the geriatric population about various insurance schemes included in national health program for their comprehensive care.

Limitation of the study

Limitation of the study was that the information was provided was based on recall memory which may involve recall bias. Due to the COVID 19 pandemic, some subjects refused to participate in the study.

Relevance of the study

The study on an awareness of health care providers about health-seeking behaviour among the elderly in rural communities of Kanpur district are not available in elaborated form. Hence this study was carried out to assess the patterns and determinants of health-seeking behaviour for chronic diseases among the elderly. Information and inferences will be helpful in utilization of locally available resources for effective health care and to aid in establishment of health programmes those are need based and locally acceptable.

Acknowledgement

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Tables

TABLE-1: SOCIO DEMOGRAPHIC CHARACTERISTICS OF STUDY SUBJECTS.

Variable	Frequency (n = 600) No.	Percentage (%)
Age (in years)		
60-65	316	52.7
66-70	154	25.7
71-75	59	9.8
76-80	45	7.5
>80	26	4.3
Sex		
Male	354	59
Female	246	41
Religion		
Hindu	488	81.3
Muslim	98	16.3
Others	14	2.4
Caste		
General	193	32.2
OBC	291	48.5
SC/ST	116	19.3
Education Status		
Illiterate	174	29
Primary	85	14.2
Middle	81	13.5
High School	150	25
Intermediate	69	11.5
Graduate & Postgraduate	41	6.8
Socioeconomic Class		
Class I	177	29.5
Class II	206	34.3
Class II	139	23.2
Class IV	63	10.5
Class V	15	2.5
Marital status		
Unmarried	12	2.0
Married	447	74.5
Divorced/Separated/Widow	141	23.5
Type of family		
Nuclear	102	17
Joint	498	83
Smoking Status		
Smokers	179	29.8
Non-smokers	421	70.2
Tobacco chewing		
Present	229	38.2
Absent	371	61.8
Alcohol addiction		
Present	154	25.7
Absent	446	74.3

TABLE-2: TREATMENT SEEKING BEHAVIOUR IN STUDY SUBJECTS.

Treatment seeking variable	Residence Rural	Residence Urban	No. (%)	Chi-Square p
Treatment availed				
Present	79(59.8)	264(77.6)	343	χ^2
Absent	53(40.2)	76(22.4)	129	=14.7p<0.05
Total	**132(100)**	**340(100)**	**472**	
Treatment availed according to sex				
Male	57(72.1)	124(47.0)	181	χ^2 =15.4
Female	22(27.8)	140(53.0)	162	p<0.05
Total	**79(100)**	**264(100)**	**343**	
Relation with family				
Accompanied	171(85.5)	281(70.3)	452	χ^2 =36.4
Non accompanied	29(14.5)	119(29.7)	148	p<0.05
Total	**200**	**400**	**600**	

TABLE 3: TREATMENT & HEALTH FACILITY USED

Type of treatment	Residence Rural 105 No. (%)	Residence Urban 238 No. (%)	Total 343 No. (%)
Allopathic	98(93.3)	230(96.6)	328(95.6)
Traditional	4(3.8)	3(1.3)	7(2.0)
Ayurvedic	1(0.9)	4(1.7)	5(1.5)
Homeopathic	2(1.9)	1(0.4)	3(0.9)
Total	**105(100)**	**238(100)**	**343(100)**
Type of health facility			
Government	67(63.8)	127(53.4)	194(56.6)
Private	19(18.1)	58(24.4)	77(22.4)
Pharmacy	8(7.6)	50(21.0)	58(16.9)
Quack	11(10.4)	3(1.3)	14(4.1)
Total	**105**	**238**	**343**

TABLE-4: DIFFERENT TYPE OF INSURANCE COVERAGE

Variable	Residence Rural No. (%)	Residence Urban No. (%)	Total No. (%)
Type of Health insurance coverage			
Individual Health insurance	9(4.5)	32(8.0)	41(6.8)
Family floater Health insurance	26(13.3)	74(18.5)	100(16.7)
Critical illness insurance	13(6.5)	38(9.5)	51(8.5)
Senior citizen Health insurance plane	3(1.5)	21(5.2)	24(4.0)
No, Health insurance	149(74.5)	235(58.7)	384(64)
Total	**200(100)**	**400(100)**	**600**

TABLE-5 REASON FOR NOT SEEKING TREATMENT

Variable	Residence Rural No. (%)	Residence Urban No. (%)	Total No. (%)
Reason for not taking treatment			
Disease due to age	13(24.5)	16(21.1)	29(22.4)
Crowding	10(18.9)	17(22.4)	27(20.9)
Govt. Hospital so far	3(5.7)	6(7.9)	9(7.0)
Lack of money	15(28.3)	10(13.9)	25(19.4)
Trust on God for Healing	4(7.5)	3(3.9)	7(5.4)
Time taking	6(11.3)	13(17.1)	19(14.7)
Mismanagement	2(3.8)	11(14.5)	13(10.1)
Total	**53(100)**	**76(100)**	**129**