

Pattern of Health Care Use in an Elderly Population in Sri Lanka

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Summary

With changing demographic patterns, provision of health care services for the elderly will be a problem that Sri Lanka has to face in the near future. Community based data related to morbidity, health care use and service needs is useful in planning for such services. A study of 1200 persons of age 60 years and over, conducted in the Western province in Sri Lanka indicated a high level of use of medical care as well as a perceived need for additional care and for health aids. Financial constraints were identified as the main factor limiting health care use. This is of importance in planning programs in countries where resources available for provision of care are limited and where alternative approaches for provision and financing of health care needs to be considered.

Introduction

The expected increase in the proportion and in absolute numbers of the elderly population in Sri Lanka in the next few decades makes it necessary to pay attention to the problems and needs of this population group so that appropriate health and other support services could be developed (1).

Reported studies on health care utilisation by the elderly have been mainly from the developed world (2,3). These highlight the need for resources for service provision for this group (4).

In Sri Lanka, health services are provided free of charge by the state through a network of institutions providing curative services and a system of 'health units' with field level staff, providing preventive and promotive health care. The Government of Sri Lanka spends approximately 7 US Dollars per capita per

annum on such services (5). A private health care system also exists, through "general practitioners" who provide a service for a fee and a network of institutions referred to as "Nursing Homes" where in-patient and out patient services are available.

Ayurveda and traditional medical care services provided through the state and private sectors are an important contributor to the health services available to the population in Sri Lanka.

In Sri Lanka, aging of the population is occurring at a lower level of economic development compared to western countries (6). Basic information related to pattern of use and needs for health care services would provide useful background data for planning a service geared towards providing for the requirements of this population group within the resource constraints.

Methods

A three stage sampling procedure was used to identify a sample of 1200 elderly persons i.e. those aged 60 years and over, residing in the three districts comprising the Western province of Sri Lanka.

During the first stage, 10 urban and 10 rural areas were identified from each district, using the probability proportional to size sampling technique. From each selected area, one cluster was randomly selected from the electoral wards in the urban areas and from the Grama Niladhari divisions (smallest administrative units) in the rural areas. Using the electoral register for each cluster, approximately 20 persons of age 60 years and over were identified. An attempt was made to have an equal number of persons in each of the age groups 60-65 and 70 years and over.

An interviewer administered questionnaire was administered to the elderly person during a household visit. Field level health workers who are mainly engaged in maternal and child health activities were trained to administer the questionnaire.

Approaches used to assess health care utilisation included: visits to a health professional during the month preceding the interview, pattern of consumption of "medicines" (prescribed, over the counter and traditional), information on the availability and the use of health services and health aids and the expressed need for medical care.

Common morbid conditions among the group during the 12 months preceding the study as reported by the respondents were identified. Simple clinical examinations were carried out to identify problems with vision and hearing.

Self assessment of health based on the response to the question "are you feeling healthy?" was also recorded. A limited number of functional status measures and physical performance measures used in community based surveys were included in the study. Assessment of the ability to carry out "activities of daily living (ADL)" was used as a functional status measure (7). The physical performance based measures used were – ability to complete semi tandem stand, full tandem stand and shoulder external rotation (full), all of which were carried out using standard procedures.

Results

The non response rate in the study was only 1.7%. Visual problems were the commonest, present in 59% of the respondents. 30% of the group had problems with mastication, 23% with hearing and 7% with mobility. Among the specific health problems reported were – arthritis (32%), high blood pressure (16%), other "heart conditions" (12%) and lung diseases (14%). Self assessment of health status indicated that only 43% assessed themselves to be healthy.

522 (44%) of the total group had used the services of a doctor during the month preceding the survey. The term "doctor" included both western qualified and ayurvedic practitioners.

431 (37%) had reported that they used prescribed western medicines while 244 (20%) had used traditional medicines and 268 (22%) had purchased western medicines 'over the counter'.

The association between indices of health service use and selected socio demographic variables was studied and the results are summarised in Table 1. A significantly higher proportion of females had seen a doctor and used medications of all types. Area of residence, number of years of schooling do not seem to influence health service use. Those living alone and those who "do not have enough money" seem to opt for traditional medicines more often. Though expected, age was not shown to have an influence on pattern of health care use except for the higher proportion of those in the 70-75 year age group, who had used traditional medicines.

The health status indicators available were studied in relation to health service use (Table 2). As expected, a significantly higher proportion of those who assessed themselves as "not healthy" had used all services more. More of those who had impairment of functional ability as assessed by the "ability to do ADL" visited doctors and used prescribed medications. Inability to complete any one of the three tests of physical performance significantly influenced use of health services. More of them had seen a doctor and had used prescribed and traditional medicines compared to those who could perform all tests satisfactorily, though this was not so in the use of 'over the counter' medications.

Even with the relatively high consumption of health services, 32% said that they needed more medical care (Table 3). Of the group who indicated the need for more medical care, 295 (90%) identified "inability to afford the services" as the main reason for the need for such services, "too far to go" being the next important reason specially in those aged 80 years or more.

There were no urban/rural differences between the number of persons who indicated the need for 'additional' medical care, the proportion

Table 1
Indices of use of health services by some socio demographic variables

Variable	No. in each group	% using service within preceeding one month			
		Seen doctor	Traditional medicine	Prescribed medicine	Over the counter medicine
Sex					
males	638	38	16	32	21
females	562	48**	25**	41**	24
Area of residence					
urban	588	46	19	38	25
rural	612	41	22	36	21
Age gp.					
60 -	385	40	18	33	21
65 -	392	43	20	36	23
70 -	213	46	28***	40	27
75 -	123	45	21	41	22
80 +	87	44	15	37	20
No. of yrs. schooling					
0	165	49	26	37	26
1 - 5	444	44	22	37	22
6 - 10	621	42	18	36	21
11 +	71	39	10	29	26
No. of persons living with					
none	36	36	64***	36	19
1 - 5 persons	599	44	19	37	22
more than 5	565	42	20	35	23
Has enough money					
yes	636	43	17	37	23
no	564	43	24***	36	22

** indicates differences that are significant at a probability level (p value) of less than 0.05, using the χ^2 test of significance, or paired comparisons where relevant.

Table 2
Use of health services by some indices of health status

Indicator	No. in each group	% using service within preceding one month			
		Seen doctor	Traditional medicine	Prescribed medicine	Over the counter medicine
Self assessed health status					
healthy	518	27	13	21	19
not healthy	665	55**	26**	48**	25**
Able to do ADL					
all eleven	423	37	15	31	20
8 – 10 only	322	36	23	32	24
less than 8	326	54***	23	46**	26
Able to do physical tests					
Semitandem					
Yes	833	38	18	32	23
No	372	54**	27**	46**	23
Full tandem					
Yes	749	37	17	32	22
No	443	53**	26**	46**	24

** indicates differences that are significant at a probability level of (p value) less than 0.05, using the χ^2 test of significance or paired comparisons where relevant.

ADL = Activities of daily living

Table 3
Number and % who need more medical care/health aids, by age and sex

Assistance required	Age in years					Total
	60 –	65 –	70 –	75 –	80 –	
Males						
Medical Care	50 (23)	63 (32)	47 (40)	27 (40)	19 (48)	206 (32)
Health aids	71 (33)	86 (43)	44 (38)	21 (31)	23 (58)	245 (38)
Females						
Medical care	47 (28)	68 (35)	44 (27)	29 (53)	7 (15)	178 (32)
Health aids	74 (44)	88 (35)	35 (36)	35 (64)	12 (26)	244 (43)

Values in parentheses are the percentages.

being 33% for each group. This is also in keeping with the absence of urban/rural differences among those who indicated a poor self assessed health status (urban 45%, rural 43%), were not able to perform all ADL (urban 40%, rural 39%) and were unable to complete any one of the physical performance tests (urban 37%, rural 33%).

34% of the total group used spectacles while 3% used walking aids and less than 1% other aids, specially hearing aids. The need for more health aids was identified with the main requirement being for spectacles required by 414 (38%). Of this group, 376 (86%) indicated 'inability to afford' as the main reason for non availability of this facility. Inaccessibility was the next important reason, in 38 (14%) of respondents. The number requiring hearing aids was small, 57 (5%) only, the main reason for non availability being "inability to afford".

Discussion

The relatively high degree of utilisation of health services and the identified need for additional services are important aspects to be considered in planning of health services for the elderly. The common morbid conditions identified in this study were such that they needed longterm management and provision of 'health aids'. Limited data available in Sri Lanka from national level data on age/cause specific mortality and from studies in selected groups indicate a similar pattern of illnesses (5,8).

Increased use of health care by females and the relationship between poor health status (self assessed), poor functional status and limitations in physical performance measures and increased use of services are similar to the findings from studies from developed countries (9,10). Many developed countries consider that provision of appropriate services for the elderly will be financially advantageous in the longterm by reducing disability in this group, which will incur added costs of health care (4). This is an important consideration for service planners in developing countries too.

Identification of financial reasons as the major constraint to use of services is of considerable

importance in service planning in countries like Sri Lanka. Even though state sector services are provided free of charge, cost of transport, loss of income for accompanying persons, cost of drugs if they have to be purchased from outside are the likely costs involved even in utilising a free service. At present, facilities available for provision of health aids on concessional terms are minimal.

In countries like Sri Lanka, with limited financial resources, diverting resources from the present priorities for provision of care for elderly needs careful consideration. Alternative mechanisms for provision and financing of such services is a priority concern (11).

It may be necessary to consider re-orientation of existing services to enable provision of care for the elderly. For this purpose, appropriate changes in the area of manpower development aimed at re-orienting the training of all levels of health professionals and primary care workers to enable provision of satisfactory services is a priority.

Even though it is reported in Sri Lanka that access to local health care to the population is 90% (12), this study indicates a differential non-availability of services to the elderly. This highlights the need for programmes to improve the use of available health services. Some of these may be outside the formal health sector, for example, provision of transport facilities on concessional terms and assistance for provision of health aids at low cost.

Proposed health programmes need to consider provision of services aimed at management of common conditions as well as those for prevention of disability which in the longterm will have a beneficial effect, financially and socially.

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References

1. Population Statistics of Sri Lanka. Population Information Division, Population Information Centre, Ministry of Health and Women's Affairs, Sri Lanka. 1992.
2. Salvage A, Vetter N. Awareness and satisfaction with community services in a random sample of over 75s. *Health Trends* 1988; 20:88-90.
3. Morgan M. Marital status, health, illness and service use. *Social Science and Medicine* 1980; 14A:633-636.
4. Kovar M J, Feinlito M. Older Americans present a double challenge: preventing disability and providing care. *American Journal of Public Health* 1991; 81:287-288.
5. Annual Health Bulletin, Ministry of Health and Women's Affairs, Sri Lanka 1991.
6. De Silva W I. How serious is aging in Sri Lanka and what can be done about it? *Asia Pacific Population Journal* 1994; 9:19-36.
7. Katz S, Brands L G, Branson M H, Papsidero J A, Beck J C, Green D S. Active Life Expectancy. *New England Journal of Medicine* 1989; 309:1218-1224.
8. Balasuriya S, Nugegoda D B. Health aspects of an urban elderly population. *Ceylon Medical Journal* 1993; 38:29-30.
9. Anson O, Pasan E, Neumann L, Chernichovsky D. Gender differences in health perception and their predictors. *Social Science and Medicine* 1993; 36: 419-427.
10. Bowling A, Farquahar M, Browne P. Use of services in old age: data from three surveys of elderly people. *Social Science and Medicine* 1991; 6:689-700.
11. Abel Smith B, and Dua A. Community financing in developing countries: the potential for the health sector. *Health Policy and Planning* 1988; 33:95-108.
12. World Health Statistics Annual 1991, World Health Organization Geneva 1992.