Primary medical care in Sri Lanka: hospital or general practice?

MICHAEL VARNAM, FRCGP
General Practitioner, Ilkeston, Derbyshire

SUMMARY. A study was undertaken to compare aspects of patient care in private general practice and in a hospital emergency care clinic in Sri Lanka. General practitioners were found to spend more time with each patient, were more likely to write some kind of patient record and were more likely to carry out immunizations and investigations. They prescribed less and referred to specialists less than their colleagues in hospital primary care. In concluding that general practitioners in Sri Lanka provide an important part of primary care the 'orthodox' view that developing countries cannot afford this type of system is challenged.

Introduction

IN the United Kingdom it is expected that minor illness will be managed by the general practitioner and major accidents in a hospital accident and emergency department.[1] In America and parts of the less developed world[2-4] health care is centred around the hospital and general practice may be seen as an optional extra for those who can afford it.[5,6]

Following the Alma-Ata proposals[7] governments in many parts of the world are looking with renewed enthusiasm at the possibility of primary rather than secondary health care provision.[8,9]

In Sri Lanka the government aims to provide free, open-access primary and secondary care facilities in hospitals, offering both curative and preventive services.[10] The government defines hospital emergency care clinics as the main part of their statewide curative primary care system. Government-funded preventive care is provided by 101 medical officers of health and 293 public health inspectors or nurses who are responsible for a population of some 15 000 000. In general these personnel are over-worked and under-trained[11] and 40% of their time is described as being involved in administrative tasks. In addition, there are general practitioners working outside the state system, who are paid for each item of service. This service is used by half the population.[11]

This study was part of a larger investigation into the role played by general practitioners in Sri Lanka in the delivery of primary health care. The management of patients by a sample of general practitioners was compared with that in a state-run emergency care clinic in Negombo.

Method

A questionnaire was sent to all 347 members of the two professional bodies which represent general practitioners in Sri Lanka — the Independent Medical Practitioners Association and the Sri Lankan College of General Practitioners. From the respondents, 100 doctors were asked to record morbidity data for one consulting session (a random sample of 35 plus 65 doctors who volunteered). They were asked to record details of patients seen in terms of age, sex, previous consulting patterns, diagnosis, investigation, treatment and referral. Some of the recording was undertaken by specially trained medically qualified visitors, the rest was self-recorded using identical data collection instruments.

During the same period the work of the medical officers in the 'emergency' department of a hospital providing open access for a population of 60 000 people (Negombo Base Hospital) was observed. This hospital was chosen as being representative of the state health services available to those living in the semi-urbanized coastal regions of Sri Lanka outside the capital of Colombo. Two Sri Lankan medical students acting under the author's direction recorded the work of two general duty medical officers on four consecutive 'normal' working days.

The hospital and general practice aspects of the study were analysed separately and the more important findings compared.

Results

Of the 100 doctors asked to record data, 40 completed data sheets on 1694 consultations in general practice: 19 randomly selected doctors saw 836 patients and 21 volunteers saw 858 patients. The general practitioners who volunteered to take part in this study were younger and more likely to be members of the College of General Practitioners than those randomly selected. The differences between those who had their consultations observed and those who recorded them themselves were not statistically significant. The average consultation time per patient ranged from 1.9 minutes to 30 minutes, with a mean of 2 minutes (standard error 1.2). General practitioners saw significantly more males than females ($P<0.001$); 52.3% of the patients were male.

In the hospital 1131 patients were seen during the eight consulting sessions by the two medical officers in a total of 1650 minutes. The average time per patient ranged from 1.0 to 2.6 minutes, with a mean of 1.5 minutes (standard deviation 0.5). Fewer male (39.1%) than female patients were seen.

Patients' presentation

In hospital 81.3% of patients presented with new episodes of illness as opposed to 61.3% in general practice ($P<0.001$). Of the 355 patients who reported having been seen in this episode by someone other than their usual general practitioner, 144 had seen another general practitioner, 141 had been to hospital, 69 had seen a trained traditional medicine practitioner, and 42 had been seen by someone they referred to as a 'quack' (44 of the 355 patients reported seeing more than one other person).

Diseases

Doctors were asked to state either a diagnosis or a symptom complex for each consultation as appropriate. Coding using the ICHPPC-2 classification[12] was undertaken by the author. Table 1 shows the top 10 diagnoses made in hospital and general practice. Clustering of diagnoses[13] showed that 27.3% of the consultations in general practice were for respiratory disease compared with 22.0% of those seen in hospital; the corresponding figures for trauma were 7.7% and 2.9% respectively, for parasitic disease 5.4% and 13.0%, and for those with infectious disease 2.7% and 1.7% (of whom half had malaria).

Table 1. Comparison of the top 10 diagnoses made by primary care doctors in hospital and general practice.

Hospital (n = 1129)[a]		General practice (n = 1694)	
Diagnosis	No. (%) of patients	Diagnosis	No. (%) of patients
1. Worm infestation	129 (*11.4*)	1. Acute bronchitis	205 (*12.1*)
2. Non-specific fever	123 (*10.9*)	2. Non-specific fever	113 (*6.7*)
3. URTI	103 (*9.1*)	3. Diarrhoeal diseases	110 (*6.5*)
4. Asthma	46 (*4.0*)	4. Wounds	92 (*5.4*)
5. Diarrhoeal diseases	41 (*3.6*)	5. URTI	90 (*5.3*)
6. Acute bronchitis	31 (*2.7*)	Immunizations	90 (*5.3*)
7. Eczema/skin infections	31 (*2.7*)	7. Asthma	77 (*4.5*)
8. Backache	25 (*2.2*)	8. Pregnancy	63 (*3.7*)
9. Immunization	25 (*2.2*)	9. Eczema/skin infections	61 (*3.6*)
10. Disorders of stomach and duodenum	23 (*2.0*)	10. Worm infestation	60 (*3.6*)

n = total number of patients. [a]Two missing values.
URTI = upper respiratory tract infection.

Patient management

The doctor wrote some type of clinical record in 60.6% of consultations in general practice and 8.0% in hospitals ($P<0.001$). Immunization was performed during 5.3% of general practice consultations compared with 2.2% of consultations in hospital ($P<0.001$). Of those seen in hospital 96.9% were given a prescription which was dispensed on the premises; in general practice the figure was 86.5% ($P<0.001$). More patients had tests performed in general practice (13.1% compared with 3.9% in hospital, $P<0.001$) (Table 2).

Patient referrals

A higher proportion (16.1%) of hospital patients than of those seen in general practice (3.7%) were referred elsewhere ($P<0.001$) (Table 3). While no patient seen in hospital was referred to more than one agency, in general practice the 60 patients who were referred were sent to 92 agencies between them.

Discussion

Sri Lanka, in common with other countries in the developing world, has responded positively to the challenges posed by the Alma-Ata declaration.[10] Its government is not alone in believing that it can deliver a state-wide primary and secondary care service without the expense of employing general practitioners. One of the aims of a wider study of which this paper is part was to examine the role of general practitioners in the delivery of primary medical care in Sri Lanka and to determine if a case could be made for not only the continuation but the expansion and integration of the services that general practitioners provide.

Table 2. Comparison of investigations performed in hospital and general practice.

	Hospital (n = 1129)[a]	General practice (n = 1635)[b]
Number of patients who had investigation	44	214
Number of patients who had multiple tests	3	47
Number of tests on:		
Urine	4	29
Haematology	29	111
Biochemistry	4	41
Stool	4	44
Other	6	57

n = total number of patients. [a]Two missing values.
[b]One set of data excluded.

Table 3. Comparison of referral pattern by primary care doctors in hospital and general practice.

	No. of patients	
	From hospital (n = 1131)	From general practice (n = 1635)[a]
Not referred	949	1575
Referred to non-consultant outpatients department	18	5
Referred to consultant in hospital	10	47
Referred to consultant privately	44	4
Referred to nurse	0	1
Referred to medical officer of health	0	6
Admitted under physician's own care	91	22
Admitted elsewhere	19	7

n = total number of patients.
[a]Some patients were referred to more than one place.

Before discussing the data reported in this paper possible limitations of the method have to be examined. It is admitted that 'like is not being compared with like' in terms of the age and experience of the general practitioners relative to the hospital doctor. As all the general practitioners had completed their compulsory five years government service, they were obviously older than their hospital counterparts who were responsible for providing an open-access outpatient service within one year of qualification. A quarter of the general practitioners had received postgraduate preparation for the specific tasks of primary as opposed to secondary care but none of the medical officers in Negombo Base Hospital had received this. In addition the hospital doctors did not have the benefit of working with more experienced colleagues and had no training at undergraduate or postgraduate level in either the diagnosis or management of patients at the primary care level.

Given the differences between the general practitioners and the hospital doctors, are the patients they see similar? It might be assumed that only the affluent can afford general practitioner care and that the rest of the population seeks the free services of a hospital department. No attempt was made in this study to investigate the financial or social standing of patients. However, the Sri Lankan government census in 1971 asked people which type of care they would seek if it was available; 54% said that they would seek private facilities and the rest would elect to go to a government department. The reasons behind a patient's decision to seek a particular type of care are varied but studies of patients' views[14,15] suggest that the quality of care is more important than cost.

The comparison between general practice and hospital consultations suggests that general practitioners see more male patients, spend more time with each patient, make fewer investigations, and are more likely to provide continuity of care since fewer of the consultations are for first episodes. All these differences might be described as desirable and would tend to support the hypothesis that general practitioners have a worthwhile role to play in the provision of primary health care in Sri Lanka. Qualitative differences between general practice and hospital care are immediately apparent to the observer. In general practice

the patients tend to sit in a waiting room and come in one or two at a time, whereas in hospital the patients present between 06.00 and 07.00 hours, form a more or less orderly queue but then wind into the room shared by two doctors and two nurses. Each hospital doctor can have five or six patients around the table at one time. In hospital the commonest diagnosis was worm infestation (11.4% of all diagnoses). A parent would often bring four, five or six children all with the same problem, then one history would be taken, several prescriptions issued and a number of consultations recorded. Thus the number of patients seen in hospital is inflated and the time per patient reduced. The rank order of top 10 diagnoses made by hospital doctors and general practitioners are also different with more worm infestations seen in hospital, fewer cases of diarrhoea, fewer immunizations and fewer pregnancies. Comparison with data collected by the third national morbidity study[16] shows that Sri Lankan general practitioners behave more like their European counterparts than do their local colleagues in hospital. They also do more preventive work than a hospital outpatient department although theoretically the government service attempts to provide this through its local medical officers of health.

Notwithstanding the problems discussed concerning the difficulties of data collection in Sri Lanka, general practitioners were shown to demonstrate positive characteristics in relation to their colleagues in the hospital primary care service and were both a useful and a worthwhile addition to the total facilities available.

References

1. Loudon ISL. The general practitioner and the hospital. In: Fry J (ed). *Trends in general practice.* London: Royal College General Practitioners, 1979.
2. Elling RH, Martin RF. Health and health care for the urban poor. *Commercial health services research services no. 5,* 1974.
3. Millman N. The role of city government in personal health services. In: *Role of state and local governments in relation to personal health services.* Washington: American Journal of Public Health (Suppl.), 1981; 71.
4. Solan G. Patterns of medical care: the hospital outpatients. *Am J Public Health* 1960; **15:** 1905-1913.
5. World Health Organization. *The relations between the hospital and its community. Symposium report.* Stockholm: WHO, 1958.
6. King M. *Medical care in developing countries.* Oxford University Press, 1966.
7. Anonymous. Alma-Ata declaration 1978. *WHO Chron* 1978; **32:** 409-430.
8. Morley D, Roade J, Williams G. *Practising health for all.* Oxford: Oxford Medical Publication, 1983.
9. Mahler H. Partnership for health for all. *WHO Chron* 1981; **35:** 203-207.
10. Ministry of Health. *Health resources review group for primary health care.* Colombo: Sri Lanka Government, 1983.
11. Simeonov L. *Better health care for Sri Lanka.* Geneva: World Health Organization, 1976.
12. Classification Committee of WONCA. *International classification of health problems in primary care (ICHPPC-2)* (3rd edn). Oxford University Press, 1983.
13. Wilkin D, Metcalfe DHH. List size and patient contact in general medical practice. *Br Med J* 1984; **289:** 1501-1505.
14. Feldman S. The use of private health care providers in Bangladesh: a response to Claquin. *Soc Sci Med* 1983; **518:** 1887-1896.
15. Glynn JR, Heyman TD. Factors that influence patients in Sri Lanka in their choice between Ayurvedic and Western medicine. *Br Med J* 1985; **291:** 470-472.
16. Office of Population Censuses and Surveys. *OPCS Monitor. Third national study of morbidity statistics from general practice 1981–82.* London: HMSO, 1986.

Acknowledgements

This study could not have taken place without the financial support of Fisons plc and the encouragement and help offered by Professor E.M. Elwood, Dr J. Pearson and Mr Ian Turner of Nottingham University Department of Community Health. The study is dedicated to the general practitioners of Sri Lanka whose energy and enthusiasm made it possible.

Address for correspondence

Dr M.A. Varnam, Littlewick Medical Centre, Nottingham Road, Ilkeston DE7 5PR.