

ATTENDANCES AT AN OUTPATIENT DEPARTMENT OF A DISTRICT HOSPITAL

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INTRODUCTION

Over the recent years, the hospital has been transformed from a "centre for dying" into a vital centre for providing treatment. Outpatient care in particular has grown in importance, serving as both an entry and exit point for hospital care. In Malaysia, use of outpatient services is increasing. Outpatient attendances in government hospitals and other government facilities was 730 per 1000 population in 1955, but by 1975, the attendances had increased to 1164 per 1000 population.

With the increasing demands placed on outpatient departments of hospitals to provide services to the people, it is important that the quality of care is maintained under these circumstances. The hospital outpatient department needs to monitor the characteristics of the patients attending it. There is a need for it to develop a profile of its patient population, know its service area, and the extent of Utilization of the services. This paper examines the characteristics of new cases attending the outpatient department of a district hospital and discusses the findings obtained in comparison to findings of other studies.

BACKGROUND

Government medical services in Peninsular Malaysia, formerly known as Malaya, started in large towns around 1880, (Malaya, 1951). By 1900, hospitals were built in most towns of the peninsula. The period 1910 to 1940 saw the progressive expansion of government medical services with the building of hospitals.

Each health district in the peninsula has one district hospital, which provides facilities for medicine, surgery, radiology, obstetrics, and special services. The district hospital also receives referral cases from components of the rural health system which comprise of main health centres, health sub-centres, and midwife clinics (Jayesuria, 1967). The district hospital in turn refers cases to the general hospital, of which there is one in every state.

To meet the increasing demands placed on the district hospital and to minimise referral to the general hospital, the number of doctors with post-graduate qualifications has been increased in district hospitals, and consultants from the general hospital visit these district hospitals at regular intervals.

PROCEDURE

Study Area

The study was conducted in the outpatient department of a district hospital established in 1967 and located in Trengganu. The hospital which has a bed capacity of 78 beds provides both outpatient and inpatient care, serving an estimated 62,000 persons, who are largely rural and predominantly Malay. It has three medical officers and on an average, 174 patients are seen at the outpatient department on a working day, approximately 25 of which are new cases. The nearest health facility health sub-centre 14 miles away.

Data Collection

The aim of the study was to determine the characteristics of new patients presenting themselves at the outpatient department for treatment, their means of travel and the distances involved. To obtain this information, a sample of outpatients was selected for study. The sample consisted of all those who attended the outpatient department of this district hospital for the first time during a selected period of ten working days. A total of 165 new cases were thus selected. Of these, 102 were adults and unaccompanied children, while 63 were children accompanied by an adult. The 102 cases and 63 accompanying adults were interviewed, the response rate being 100 per cent. A breakdown of the 63 accompanying adults shows that seven were the fathers of the cases, 37 were the mothers, nine were grandparents, and 10 were either uncles, aunts, friends, or distant relatives.

Findings

The age distribution of the 165 outpatients is presented in Table I. Of the 165 patients, nine (5.5%) were below one year of age, 29 (17.6%) between one to four years, 36 (21.8%) between five to fourteen years, 52 (31.5%) between 15 to 24 years, 24 (14.5%) between 25 to 44 years, 11 (6.7%) be-

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tween 45 to 64 years and four (2.4%) between 65 to 74 years. In this study 126 (76.4%) patients were below 25 years of age. The mean age of this sample is 19.5 years.

Table I

Age Distribution of the 165 Outpatients		
Age (years)	Number	Percentage
Less than 1	9	5.5
1 - 4	29	17.6
5 - 14	36	21.8
15 - 24	52	31.5
25 - 44	24	14.5
45 - 64	11	6.7
65 - 74	4	2.4
Total	165	100.0

There were 99 (60%) males and 66 (40%) females, giving a male to female ratio of 3:2, and 150 (90.9%) Malays, 13 (7.9%) Chinese and two (1.2%) Indians. One hundred and sixteen (70.3%) patients were unmarried, while 45 (27.3%) were married, two (1.2%) were divorced and two (1.2%) were widowed.

Of the 165 patients, 71 (43%) had no formal education and were unable to read or write, while 94 (57%) had education ranging from standard one to university level. A breakdown of these 94 patients shows that 47 had primary education, 42 secondary education between form one and form five, while two had done their higher school certificate. Two others had technical and vocational training after completing form five, and one had completed university education.

The monthly income of the family of the patients is given in Table II in Malaysian Ringgit. Incomes vary from none (in the cases of single individual families) to \$3000. One hundred and forty eight (84.8%) respondents had family incomes of up to \$350 per month while the median monthly family income of the sample was \$176.17 cts. Family size in this sample varied from one to 15 with an average of 4.8. One hundred and fifty patients (90.9%) belonged to families of size three or more.

The occupations of the patients, except for 45 who had not attained school going age, was varied. A breakdown of the occupations of the 120 individuals showed that 50 were students, 12 were housewives, 19 were rubber tappers and labourers, 12 were either foremen, mechanics, drivers, carpenters, trishawmen or fishermen, 11 were either businessmen, cashiers, shop assistants or cake sellers, while six were either government officials or teachers, and 10 were unemployed.

Table II

Monthly Family Income of the 165 Outpatients		
Income*	Number	Percentage
Less than \$50	2	1.2
50 - 99	20	12.1
100 - 149	45	27.3
150 - 199	30	18.2
200 - 249	26	15.8
250 - 299	8	4.8
300 - 349	17	10.3
350 - 399	3	1.8
400 - 499	2	1.2
500 - 599	4	2.4
\$600 and more	8	4.8
Total	165	99.9

* Income in Malaysian Ringgit.

Ninety eight patients (59.4%) stated that the district hospital was the nearest health facility to their homes. Twenty five (15.2%) lived near a mid-wife clinic, 23 (13.9%) near a sub-centre, six (3.6%) near a *Klinik Desa* (a rural clinic manned by a community nurse or *Jururawat Desa*), while seven lived near an estate clinic. Two patients lived near a stopping point of the government travelling dispensary but otherwise lived near no known health facility. In general, 33 patients (20.0%) lived within a mile of a health facility, 47 (28.5%) from one to two miles, 45 (27.3%) from two to three miles, nine (5.5%) from three to four miles, 22 (13.3%) from four to five miles and the remaining nine patients lived five miles or more from their nearest facility.

The patients were asked the distance of their homes from the district hospital and the observations are presented in Figure I. One hundred and one of them (61.2%) lived within five miles of the hospital and of these, 84 (83.2%) lived within three miles. Of the 64 who lived five miles or more from the hospital five (7.8%) lived five to nine miles away, 40 (62.5%) lived 10 to 19.9 miles away, 10 (15.6%) lived 20 to 29.9 miles away, four (6.3%) lived 30 to 39.9 miles away and five (7.8%) lived 40 to 49.9 miles away.

Table III shows the mode of transport used to attend the hospital. It was observed that 52 (31.5%) came by bus, 30 (18.2%) walked, 29 (17.6%) came by car (personal, friend's or company's), 22 (13.3%) by trishaw, 21 (12.7%) by bicycle, six (3.6%) by boat and either a bus or taxi, four by motorcycle and one by taxi. The bus was the most common mode of transport used by the

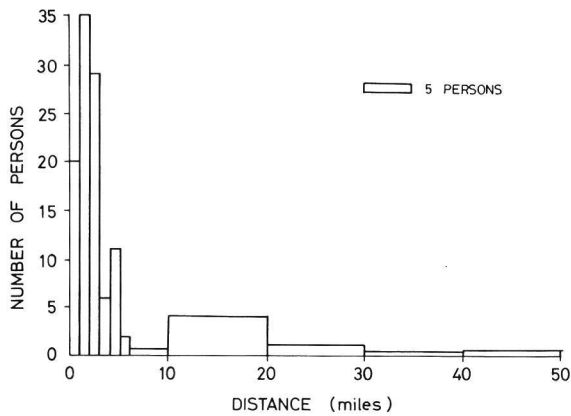


Fig. 1. Distance travelled by the Respondents from home to the hospital

respondents, followed by walking, car, trishaw and bicycle. In this study 80 patients used public transportation (bus, taxi, trishaw) to reach the hospital and the amounts spent varied from 10 cents to \$7.50 cts one way with a median amount of \$0.82 cts. Fifty four (67.5%) out of these 80 patients spent up to a dollar to get to the hospital.

Table III
Mode of Transport to Hospital

Transport	Number	%
Bus	52	31.5
Walking	30	18.2
Car	29	17.6
Trishaw	22	13.3
Bicycle	21	12.7
Others*	11	6.6
Total	165	99.9

* Includes Boat + Bus; Boat + Taxi; motorcycle; taxi

On analysis of the information on the person responsible for the patient coming to hospital, it was found that the persons quoted most often by the patients were parents in 71 (43.0%) instances. Fifty four respondents (32.7%) said that they themselves decided to come to hospital, seven said that grandparents were responsible, seven more said their spouse was responsible, while six said that medical staff were responsible. A further 10 patients said that their teachers sent them to the hospital, and ten identified friends, relatives, and others as being responsible for their coming to hospital.

Fifty eight persons (35.2%) suffered from respiratory tract illnesses, and of these 11 were below four years of age, 16 between 5-14 years, 29 between 15-44 years and two above 45 years. The male:female ratio of these 58 persons was 2.2:1 (40

males: 18 females). Gastrointestinal diseases were found in 45 (27.3%) cases, the majority of them (21 cases) being under four years of age. Diseases of the skin, muscles and bones were the next most frequent (35 cases, 21.2%), being prominent in the age group 5-44 years (26 cases), while other less commonly manifested illnesses were pyrexias of unknown origin, malaria, diseases of the eye, the cardiovascular system and the genito-urinary system; and psychiatric illnesses.

Of the 165 persons seen at the outpatient department, 148 (89.7%) were treated and discharged, nine (5.5%) were admitted, seven (4.2%) were treated and asked to come for follow up, while one (0.6%) patient was investigated and asked to return for follow up.

DISCUSSION

District hospitals in Peninsular Malaysia provide primary, ambulatory care to a large proportion of the country's population, particularly those in the rural areas. Ambulatory care, according to Mountz (1975), is the Cinderella stepchild of the hospital system, beginning as a low prestige offshoot in the concern for the horizontal patient. The consequence is that the care provided in the outpatient department is often episodic. However, with the increased utilization of its services recently, the facilities and services provided by the outpatient department have become virtually indispensable to the maintenance of community health. In Malaysia, the impact of the services provided by district hospitals along with the rural health units on the health of the people is reflected in the trends of vital statistics as shown in Table IV.

Despite the existence of medical care services provided by the rural health unit, hospitals, such as the one studied, often have their facilities stretched to cover larger areas than they would under ideal situations (Chen, 1975). Thus it is found that only 54.5% of the respondents live within three miles of the hospital, while the rest come from between three to 50 miles away. In his study of attendances at a child health clinic, Chen (1975) observed that 41% of respondents lived within a distance of three miles, while the rest came from between three to 10 miles away. Undoubtedly, where public transportation is available, the catchment area of the hospital would be considerable as observed in the present study.

The poor and less educated have been found to utilise outpatient services more (Baker, 1966 and Rein, 1969). This is also seen in the present study, as 58.8% of the sample have family income levels below Malaysian \$200 per month. Forty three per cent of the patients have had no education, and of the rest, half have had less than six years of schooling. Richardson (1969), however, observed that though the poor had more disease, they utilised the

Table IV
Vital Statistics, Peninsular Malaysia
1957, 1970 and 1976

	1957	1970	1976
Crude Death Rate (per 100,000 population)	12.4	7.3	6.2
Infant Mortality Rate (per 1,000 live births)	75.5	40.8	30.7
Toddler Mortality Rate (per 1,000 toddlers)	10.7	4.2	2.6
Maternal Mortality Rate (per 1,000 live births)	2.8	1.5	0.8
Life Expectancy (years)			
— Male	55.7	63.5	65.0
— Female	58.1	68.2	69.9

Source: Vital Statistics Peninsular Malaysia, 1976
Department of Statistics, Kuala Lumpur,
Malaysia.

services less.

The predominant age group utilising the out-patient services is the 15 to 44 years group. Findings on this differ in different studies. Among women, Banks (1975) found high consultation rates among the very old and the young who are between 15 to 44 years. Higher utilisation was seen among those above 65 years, followed by under fives, by both Baker (1966) and Morrel (1971). Steinmetz (1971) in his study found that 53% of his sample were in the zero to nine years group. In the present study only a small proportion (5.5%) of children below the age of one came to the hospital. This may be due to their being taken to maternal and child health clinics for immunizations and minor illnesses. The results show a slight male preponderance in the attendance at the hospital. Steinmetz (1971) found that males used the out-patient services less, while Baker (1966) could not establish a difference between the sexes on this. A large proportion (70.3%) of unmarried persons are found in this sample. This is not surprising as 76.4% of the respondents are below the age of 24 years.

In his study of general practice, Morrel (1971) found that 20% of cases presented with respiratory disease, 12% with mental illness, 7.9% with gastrointestinal symptoms, and 6.9% with diseases of the skin and bone. As is common in rural areas, the present study shows that the diseases with which the cases presented most often were respira-

tory diseases (35.2%), gastrointestinal problems (27.3%) and disease of the skin, muscles and bone (21.2%). Among children below 14 years, especially among toddlers aged 1-4 years, respiratory and gastrointestinal diseases were common, while among adults, in addition to these, diseases of the skin, muscles and bone, genito-urinary problems and cardiovascular complaints were common. Fernando and Aponso (1967) found that among toddlers in Ceylon the diseases presented were similar to those found in this study. Giel's study (1968) of outpatient cases in Ethiopia revealed that among children, in addition to respiratory and gastrointestinal diseases, nutritional problems and diseases of the skin were common, while among adults it was diseases of the blood and lymphatic tissues, gastrointestinal tract, respiratory system and genito-urinary system.

It is encouraging to note that parents and grandparents are responsible for 47.2% of the patients coming to the hospital, while another 32.7% patients are self-referred. These observations, coupled with the relative increase in utilisation of government hospital facilities by the Malays (Table V), suggest that there is a possible shift from traditional medicine towards modern medicine among the Malays.

Table V
Changing Patterns of Utilisation of
Government Hospital Facilities

Year	Malays	Chinese	Indians	Others
	%*	%	%	%
1960	25	46	27	2
1965	30	44	25	1
1970	36	39	24	1
1975	41	37	21	1

* Percentage out of total patients utilising government hospital facilities

Source: Economic Report 1976-77, Ministry of Finance,
Malaysia.

One of the problems faced by any hospital is the situation where cases by-pass medical care facilities that are near their homes and come to the hospital for treatment. This appears to be a relatively small problem in this sample. Of those who came to the hospital only 22.9% respondents lived nearer a health facility, such as a sub-centre, *kelinik desa* (rural clinic) or an estate clinic, than the hospital.

It is only to be expected that hospital utilization will go on expanding, with the increasing awareness of the benefits of modern medicine as a result of the spread of literacy. Developing countries have a scarcity of financial resources and of trained manpower, in addition to an excessive fertility pattern and unduly heavy burden of disease (Chen,

1975). It is therefore imperative that health services are organised to maximise returns in terms of the limited resources at hand. Knowing the profile of its patient-population, its service area, and the utilization of its services will enable a hospital to plan its services, allocate personnel and other resources, and monitor costs to achieve maximum use of the limited resources available. Furthermore, information and statistics which could be used for public health education programmes would be available. The fact that families living far away are willing to utilise scanty cash resources as fares to and from the hospital to seek treatment indicates a high level of motivation. Health education given to such motivated groups on general and specific health programmes could possibly meet with great success.

SUMMARY

A sample of 165 new cases attending the outpatient department of a district hospital has been studied. The cases are young and come from relatively poor families which are large. The majority of the cases live near the hospital, but of those who do not, distances travelled and money spent on public transportation to seek medical care are considerable. They are indicative of a high level of motivation among the respondents to seek treatment. Health education programmes directed at such groups are likely to meet with success. Increasing utilization of the outpatient department places a strain on the limited resources available at these centres. The importance of having a knowledge of the profile of the patients the hospital is serving, its service area and the utilization of its services are thus emphasized.

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