An assessment of an experimental surgery scheme in general practice

by

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Summary

A study of aspects of the work and of the opinions of patients and staff was made at times over a period of two years before and one year after the opening of an experimental surgery unit specially designed for a particular way of organising the doctor/nurse team in general practice. The investigation took place in a busy group practice of three doctors caring between them for over 9000 patients living in a London borough.

The main characteristic of the experimental scheme was that each team comprising a doctor and nurse used three small consulting rooms. In a normal surgery the nurse brings in a patient from the waiting room to one of the consulting rooms makes preliminary inquiries and preparations before proceeding to deal similarly with the next patient. The doctor them follows her to make his own assessment of the patient and to complete the consultation (N.B. the nurse is not present at this stage).

The experimental surgery unit was found to function efficiently in the face of heavy surgery loads; there was little congestion and waiting times for patients were certainly no greater than when the doctors concerned were working in the conventional way. Patients were on average receiving at least as long a consultation with the doctors, as when the latter were working in the main surgery in the usual way, and additionally spent some three minutes with the nurse. The distribution of the doctors' consultation time in the experimental unit was such that they were generally spending more of this on activities considered to be central to their job, for example talking and listening to the patients and examining them, and less time on administrative tasks or waiting between patients. Also the nurse had taken over in the experimental scheme almost all of the examination and treatment procedures considered by the general practitioners involved to be within her competence. The staff generally liked working in the experimental unit and the doctors in particular felt less fatigued than when they were working in the conventional way particularly when faced with long surgery lists. Both doctors working on a regular basis in the experimental unit recalled a greater proportion of patients but relatively fewer patients returned on their own initiative for further attention than was the case before the Unit opened. One doctor who was faced with a substantial increase in demand, in the form of new contacts, in the experimental surgery appeared as the net effect of these changes to be able to maintain a discharge rate equal to this demand and so avoid building up a backlog of work.

The surveys of patient opinion suggested that the great majority of respondents liked the new building and associated method of working and many saw it as providing an improved standard of care. Those who saw her presence in the surgery as an advantage,

and the majority did, saw this rather in terms of her enabling the doctor to spend his time more effectively with them. Generally the experimental scheme was found to be helpful and satisfying to those using it in the practice studied and the building proved to be very adaptable and well suited to a variety of primary health care activities such as minor operations clinics, relaxation classes and teaching.

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INTRODUCTION

This study is concerned with the appraisal of a particular way of organising the work of a doctor/nurse team in general practice in premises purpose built for this method of operating.

The study took place in a busy group practice of three doctors who cared for an average of over three thousand patients per doctor. The practice was located in a London borough.

The following considerations stimulated one of us (C.B.F.), a member of the practice, to look for a way of improving on the conventional way in which a general practitioner organises his consulting in the surgery:-

a. How can a busy doctor make more effective use of his time?

b. Would it be possible to save professional time by developing a more efficiently designed surgery, where for example, all forms and equipment were at hand and which minimised, so far as a building can, unwanted delays between patients?

c. Is it possible to design a surgery where facilities are such that there is no need for examination rooms?

d. Could nurses be used to prepare patients for the consultation with the doctor?

Where the doctor has the use of an examination room the effect of dividing a consultation into two parts by a consultation with another patient, can add to the difficulties of maintaining the doctor's concentration. Nurses however could be used to make an initial assessment of patients and prepare them for examination where appropriate. In this way she would cooperate with the doctor without taking over completely certain consultations, and be available to treat patients when required.

A method of working incorporating these ideas, gradually evolved originally in the ante natal clinic, and later in the child health clinic. Two adjoining consulting rooms in the main surgery were used and a state registered nurse (not the health visitor)was invited to work with the doctor. Her task was to prepare the patients for examination, to head prescriptions and do any other preparatory work she could, then move on to the other consulting room to deal with the next patient. The doctor would follow her to make his own assessment of the patient and to complete the examination.

When one partner was on holiday and the other became ill, one of the authors (C.B.F.) had to run the three man partnership on his own for a week. The nurse was asked to help work the surgeries with the doctor in the same way as in the child health clinic. Although the doctor was under considerable pressure, seeing a large number of people in each surgery, patients were examined and treated and not 'put off' until the following week as would frequently happen under such extreme circumstances. He found the discipline of having someone else make a preliminary decision as to whether examination was necessary or not was a good one (the doctor still making the final assessment). C.B.F. noted that few patients appeared to object to the intervention of the nurse and some remarked that they found it a positive advantage to have had an opportunity to clarify their history before seeing the doctor. All patients still saw the doctor.

A promising method of working with the nurse appeared to have been found. The full potential of the method could not be realised in the existing premises. The fact that the doctor and nurse alternated with one another between two consulting rooms meant that one or the other could be held up as a result of their spending different lengths of time with patients.

The idea evolved of designing an experimental surgery unit specifically for the method of working of the doctor/nurse team described above. Three consulting rooms per doctor appeared to be the minimum necessary for the system to work smoothly without frequent hold ups. To enable two doctors to work in the unit it was designed with six consulting rooms grouped around a central area. Also in the building would be a toilet, waiting room and office, the whole to be built in the garden of the existing surgery premises. A proposal was put before the Department of Health and Social Security in 1968 for a 'before and after' study of the idea. This was accepted and the study was set up, in conjunction with members of the Centre for Research in the Social Sciences at the University of Kent at Canterbury, who subsequently became part of the Health Services Research Unit. The ownership of the experimental building was vested in the Royal College of General Practitioners.

The field work for the before stage of the study took place in the period October 1970 to September 1972. The building was being constructed during the latter part of this period and became operational on October 16 1972. Field work for the after stage of the study took place over the next year.

OBJECTIVES

1. To examine whether the experimental building (for description see page 8) was adequate for its intended purpose - i.e. two doctor/nurse teams working together under the normal range of surgery conditions.

2. To examine how time was spent by the doctor during a normal surgery in the original premises of the practice and to compare this distribution with that for doctors and nurses, over comparable periods, working in the experimental surgery building, to assess whether anticipated changes (see page 14) did in fact take place.

3. To compare the number and content of the consultations in the experimental surgery building with those in the original surgery premises, for comparable periods of time, to ascertain whether anticipated changes (see page 14) had in fact taken place.

4. To assess patient and staff attitudes towards the experimental surgery building and the doctor/nurse team working there.

THE PRACTICE[1]

Characteristics of the Practice

The practice was established in 1932 and based in a large Victorian house in a London Borough.

It serves an area which extends for a radius of about a mile or so from the surgery premises in a highly populated urban area. The patients are drawn predominantly from the working class and include a number of immigrants. The three partners between them serve a list of about 9,000 patients.[1] The local district hospital is only 200-300 yards from the surgery and the practice enjoys open access to both x-ray and pathology services.

Dr. A, the senior partner, has been in general practice for about 20 years. He has a high proportion of the elderly patients on his list and carries a higher home visiting load than his two partners (see Table 2(b) Dr. B chose not to work in the experimental surgery building, but he provided some comparable data. Dr. C was the originator of the present project. His list carried a higher percentage of the younger patients in the practice and he was responsible for running the child health clinic to which patients from all three doctors attended. The partners undertake only a small and diminishing amount of private work.

Chart 1 (see page 5) gives details of the practice staff. There are however two rather unusual members -

a. A fully trained nurse lives on the premises and serves as a night receptionist taking out of hours calls and referring them to the duty doctor. This nurse was involved with Dr. C in pioneering the methods of working which gave rise to the development of the whole project.

b. A practice driver; since 1966 the practice has provided a transport service for patients - thereby helping to reduce considerably the number of home visits (Floyd (1968) and Lance (1971)).

Changes during the study period

The subject of this study was the examination of the effects of two major changes - one the move into the new building and the other the introduction of a doctor/nurse team at ordinary surgery sessions. During

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[1] Chart 1 and 2 give details of the practice and its staff and the surgery timetable.

CHART 1

THE PRACTICE

The list size - 1970 9,087
1973 9,084

The area of practice - urban - most patients live within 1 mile of the surgery.

Staff[1]

Practice staff

Secretary/research secretary - 35 hours per week

Receptionists : three part time receptionists - covering a total of 70 hours per week.

Housekeeper - lives in a self contained flat at the surgery and takes night and weekend calls and refers them to duty doctor, (an S.R.N.see p.4).

Driver : transports patients to and from surgery - total of 15 hours per week.

Surgery nurses : For the first six months of the experiment one full time nurse and two part time nurses were employed; thereafter four part time nurses working sixteen hours per week each were employed.

Local authority staff

Midwife - partial attachment since 1959 (insufficient work for full time midwife).

Health visitor - one full time attachment since 1966 plus one part time attachment since 1970.

District nurse - one full time attachment since 1966 plus one S.E.N. attached since 1970.

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[1] Applies throughout study period unless otherwise indicated.

CHART 2

SURGERY TIMETABLE OF SESSIONS UNDERTAKEN ON THE PREMISES

(this did not change during the study)

	9.00 - 10.30 morning	2.00 - 4.00 afternoon	4.30 - 6.00 evening
Monday	Dr. A [Dr. B] Dr. C	Well baby clinic Dr. C and H.V.	4.00-5.00 ante-natal clinic Dr. B + midwife + H.V. Dr. A [Dr. B] Dr. C
Tuesday	Dr. A Dr. C	Screening clinic - H.V.	Dr. A [Dr. B]
Wednesday	[Dr. B] Dr. C	[Industrial medicine elsewhere - Dr. B] Minor surgery clinic - Dr. C	[Dr. B] Dr. C
Thursday	Dr. A [Dr. B]	Ante natal clinic Dr. C + midwife + H.V.	Dr. A Dr. C
Friday	Dr. A [Industrial medicine elsewhere - Dr. B] Dr. C	[Clinic assistant Anaesthetics - Dr. C]	Dr. A [Dr. B] Dr. C
Saturday	One Doctor each Saturday in turn		

[ ] indicates not undertaken in new building

All patients are seen by appointment - made at five minute intervals. The appointment system is 'open ended'. A parent asking for an appointment for a child under five years must be seen at the next surgery.

the study period an effort was made not to alter the features of the practice or work load more than necessary for the smooth running of the practice.

However two changes were allowed to occur during this period:

a. Dr. B - who was looking after a private nursing home, decided to take on no new patients from there, leading to a reduction in his visiting workload.

b. During the timings in the 'before' study it was found that the receptionists were 'double booking' patients to complete surgery sessions, on paper at any rate - in a reasonable time! This practice was then stopped and the appointments system became 'open ended'. Appointment intervals of 5 minutes were maintained throughout the study.

THE EXPERIMENTAL SURGERY PREMISES

Introduction

The new unit is situated in the garden behind the main surgery premises and linked to it by a passage. The patients' notes are kept at the reception desk at the entrance in the 'main building' and patients contact the practice in just the same way as before the unit was built. The new building was designed with certain principles in mind :

1. There should be a smooth patient flow from the reception desk. Considerable care was taken in designing the building to avoid 'congestion' points and'crossover' points which could lead to patient confusion.

2. There should be minimal movement of patients. Once a patient was established in a consulting room he would stay there until consultation and treatment had been completed. Staff not patients would circulate.

3. The building should be designed so as to be efficient for the doctors and nurses to use. Forms and equipment were to be easily to hand and kept in the same place in each consulting room.

4. There should be minimal interruption during a consultation - thus telephones should not be placed in each room but based in the central area.

The building[1]

It is a prefabricated timber building (Robert Hall Ltd's programme E system)[2], with outside measurements of 11 metres x 11 metres and is connected to the old building by a 'link area'. The units contains six small consulting rooms (see Plan page 9) - three rooms on each side divided by a central area. A separate doctor/nurse team operates each suite of three rooms. In addition there is a small waiting room - (the waiting room in the main surgery being used if necessary) and an office to house the secretary and enable the doctors to have a base to deal with their correspondence. There is a toilet area conveniently situated for patients and for the production of urine specimens when necessary which can be passed through to the nurse in the central area via a 'double cupboard'.

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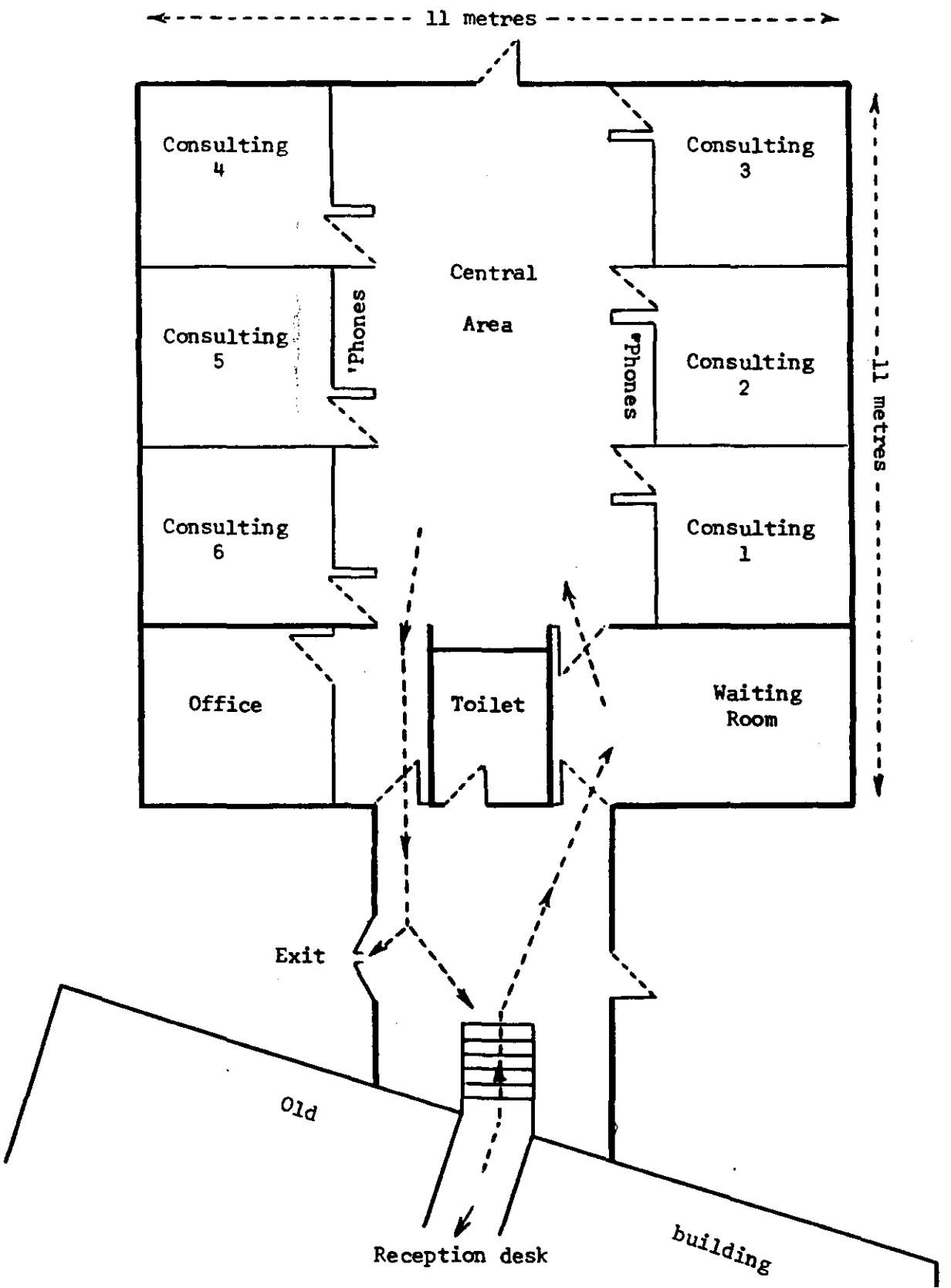
[1] A full list of equipment used in the unit and the costs are given in the appendix.

[2] It was realised that the 'package deal' is not necessarily cheaper but erection of the building should be quicker. Wet trades, e.g. plastering are reduced or eliminated and there is also a reduction in drawing office time and site supervision.

PLAN

LAYOUT OF NEW SURGERY



The large central area is a working area to serve the six consulting rooms, and the cupboards store stationery, drugs and instruments. Central bays outside consulting rooms 2 and 5 hold the external telephones and intercoms and it is to here that the doctors and nurses return after each consultation. Here the patients' notes are kept until required and returned after the consultation. At the end of the surgery session the notes are sent back to the reception desk.

Patients pass through the central area on their way from the waiting room to the consulting room or on their departure from the surgery.

The size of the consulting rooms is 2.6 metres x 2.9 metres. Each is identical apart from the colour of the soft furnishings which change from room to room. A satisfactory sound proofing was installed by staggering the doors of each consulting room with those of the opposite side, placing the cupboards in the recesses (see Plan page 9) and constructing the walls between the rooms to roof level using a double layer of plaster board on each side with sound proofing felt in the cavity.

The consulting rooms contain three chairs, identical apart from the doctor's chair being on a swivel. There are no desks because of the limited space. A sink unit provides a work top with a cupboard underneath. This houses five 'Gratnell' drawers, one holding equipment for general examination, others for vaginal examination (including cervical smear material), a rectal tray, a dressings tray and a tray for pathological specimen bottles.

Small drawer units are used to store disposable syringes and needles. A wall mounted sphygmomanometer with velcro cuff and coiled tube is mounted behind the couch.

Above the sink unit is a cabinet containing forms, letter headings and certificates. Each form has its own place in the cabinet, and marker cards ensure restocking of the forms as they are used.

The rooms are fitted with colour coded lights, situated outside the doors, enabling the nurse to show that the patient is ready for the doctor's consultation and making it possible for the doctor to indicate that he requires the nurse to join him or return to give treatment.

High level windows in the rooms provide more privacy for patients and staff. The ceiling is made of 0.6 metres x 0.6 metres acoustic tiles and artificial light is supplied from recessed fluorescent light fittings. The

walls are covered with vinyl paper and the floor with fitted Endura carpeting.

Staff in the new premises[1]

When the unit first opened a full time nurse and two part time nurses were appointed to cover surgeries. The full time nurse left after six months and was replaced by two part time nurses. The four nurses each work for 16 hours per week and have been trained to work with either doctor and arrange their work rota themselves.

The practice secretary uses the office in the new unit and so is easily available to the doctors when they need her help.

Activities

The unit was specifically designed for normal surgeries and this was its main use during the period of the study. It was also used for the child health clinic, the ante natal clinic and minor surgery clinic. Since the field work was completed it has also been used for screening nine month old babies for deafness, ante natal relaxation classes and for teaching and lecturing purposes.

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[1] Note the patients use the reception arrangements situated in the main surgery premises.

OPERATION OF THE UNIT

Before surgery begins the nurse collects a box from the reception desk containing the medical records of patients who are expected to attend, together with a photocopy of the appointments sheet.

The nurse calls the first patient from the waiting room and directs him to a vacant consulting room. She prepares his notes on a clip board with two clips; one to hold the record envelope and the other the continuation card, headed prescription, hospital letters or pathology reports etc., when relevant. The patient is invited to sit down and the nurse takes a brief history of his complaints to enable her to prepare him for the doctor's consultation. She will take the temperature, blood pressure, or weigh the patient, if needed, and enter the results on the notes. If he presents with a condition requiring examination she will ask the patient to get undressed and lie on the couch if appropriate and will give any help needed.

The nurses have been instructed not to pursue their questioning if the patient is reluctant to talk to them - in practice a rare occurance. When she leaves the patient, she signals to the doctor that the patient is ready by using the colour coded lights.

The nurse leaves the prepared notes for the doctor in the writing bay and repeats the same procedure with the next patient in the next room.

The doctor collects the notes from the bay and goes in to see the prepared patient. The nurse is not present during consultation unless specially requested to be there.

The doctor takes the patient's history and when necessary an examination is made on the prepared patient (although the doctor on occasions still makes examinations that have not been foreseen by the nurse). Should treatment be needed this can be given either by the doctor or by the nurse who can be recalled by using the coloured lights system.

Prescriptions and certificates are written and the patient's notes completed. The patient is then seen out of the consulting room or left to dress himself, and as the doctor leaves he turns off his coloured light outside the room showing the nurse that the consultation is complete.

The doctor returns to the writing bay leaving the completed notes and collecting the board of prepared notes for the next consultation.

As the patient leaves he goes past the office where there is a red telephone connected to the reception desk so that he is able to make his next appointment and then leave the building via a side exit. At the end of the surgery session the nurse returns all the patients' notes to the reception desk in the main surgery building.

THE INVESTIGATORS' PREDICTIONS ABOUT THE WORKING OF THE NEW SURGERY PREMISES

1. The new surgery would function at least as efficiently as the main surgery in terms of patients' average waiting times and levels of congestion on the premises.

2. Less of the doctors' surgery time would be taken up with the kinds of activities judged to be relatively unproductive (these are described in further detail on page 32) so that a greater proportion of their time would be spent on the central elements of the consultation.

3. The new surgery was designed to facilitate examinations of patients and it was anticipated that this would lead to more examination procedures being carried out.

4. It was anticipated that the doctor/nurse team working in close collaboration in the new building would have the effect of the nurse taking over selected examinations and treatments.

5. A higher proportion of the doctors' time spent on the central elements of consultation should result in more careful diagnosis and treatment and so reduce the likelihood of the patient returning of his own volition to the surgery.

6. The new surgery system and its associated method of waiting would be acceptable to most patients and staff.

DATA COLLECTION ON THE WORK OF THE PRACTICE

Introduction

Data collection on the work of the practice took place for two years before and one year after the opening of the new surgery. For the doctors (A and C) and their patients two major changes took place after the experimental surgery building opened :

1. These doctors now saw patients in an entirely new environment.
2. These doctors worked in doctor/nurse teams for all surgery sessions.

It would of course have been ideal to monitor continuously all relevant aspects of the work during the period under review. The nearest it was possible to get to this was that all three partners agreed to collect simple 'basic work load data', during the whole of the study, consisting of the number of surgery consultations and home visits made each day to provide a baseline against which samples of the practice work from shorter periods of more detailed investigation could be compared.

Shorter periods of detailed recording were concentrated in six four week periods[1], three before the experimental surgery premises opened and three after. In both before and after phases of the study two of the periods were in October/ December and the other one in March/April (see Chart 3 page 16).

During each month of detailed recording four schemes for collecting data were used as follows :

a. One week - timing (chronostamp) study - to examine how the patient's time was spent at the surgery and the occupancy levels of rooms.

b. One week - bleep (activity sampling) study - to study the doctors' and nurses' distribution of time between various tasks during surgery sessions.

c. One week - patient analysis[2] study - to study the content of the consultations, in particular diagnosis made, numbers of examination and treatment procedures.

d. Four weeks - patient referral study - to examine the doctors' patterns of referral and recall.

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[1] Not always exactly coinciding for all three doctors.

[2] Patient analysis data were collected for two weeks in the first recording sessions only and the results for these two weeks were averaged to provide comparable 'weekly' data.

CHART 3

THE DATA COLLECTING SCHEME

The six detailed recording periods were :

Before the experimental surgery opened	After the experimental surgery opened
5.10.70 - 13.11.70	15.11.72 - 19.12.72
1.3.71 - 1.4.71	1.3.73 - 4.4.73
25.10.71 - 19.11.71	3.10.73 - 9.11.73

For each detailed recording session the pattern of the data collection was as follows :

	Before opening of experimental surgery premises	After opening of experimental surgery premises
Bleep (activity sampling) study (1 week)		
Dr. A and Dr. C	Doctor only	Doctor[1] and nurse
Patient analysis study (1 week)[2]		
Dr. A and Dr. C	Doctor only	Doctor[1] and nurse
Patient referral study (4 weeks)		
Dr. A, Dr. C and Dr. B	Doctor only	Doctor and nurse
Timing (chronostamp) study (1 week)		
Dr. A, Dr C and Dr. B	Doctor and receptionist	Doctor, nurse and receptionist

[1] Dr. A also had an observer (a nurse) to collect his data

[2] Patient analysis first period both doctors collected two weeks data

All three doctors provided patient referral and timing data. Only the doctors using the new building (A and C) provided patient analysis and bleep data. Dr. C recorded the observations himself, while in Dr. A's case the data were obtained by means of a non participant observer (a trained nurse). The surgery nurses working with Drs A and C provided timing and bleep data for their own work when the new building was operational.

The list sizes of the practice doctors

The list size of the practice as a whole remained almost unchanged over the three years of the study, although there was a slight alteration in the number of patients held by Drs A and C (Table 1).

Comparison of results from the different methods and periods of data collection

Where the same item of information was recorded by more than one method of data collection over the same period of time the results were checked for compatibility. With one exception the results from the various methods agreed closely (i.e. differing from one another by less than 2 per cent of their magnitude). The exception was in the case of basic work load data and patient referral data collected for home visiting. Here there was a substantial deficit in visits recorded on the patient referral forms compared with that obtained from basic work load data. Investigation suggested that the latter gave the correct information as patient referral forms had not been completed for a number of patients. Accordingly information on home visits from the patient referral forms will not be discussed further in this report.

The detailed information for surgery consultations (see page 15) was collected for relatively short periods during the course of the study. It is important to consider how far the results so obtained can be regarded as being representative of the work of the practice throughout the whole period of investigation. In particular were the differences noted between the before and after periods of the same order of magnitude in each of the types of data collected?

TABLE 1

LIST SIZES[1] OF DOCTORS AND ANNUAL CONTACT RATES PER PATIENT ON LIST

Average number of patients on list per doctor for year commencing 1 October

Doctors	Before 1.10.70-30.9.71	1.10.71-30.9.72	After 1.10.72-30.9.73	Percentage change after/before (1970/72 averaged)
A	3,084	3,033	2,938	- 5%
C	3,231	3,265	3,372	+ 4%
B	2,772	2,801	2,774	0%
Total	9,087	9,099	9,084	0%

[1] Calculated from the Executive Council's quarterly returns to the practice.

The percentage changes ('after' compared with 'before') in average surgery attendances during the periods when the five different types of data were collected were as follows :

	Dr. A %	Dr. C %	Dr. B %
Routine data	+ 3.6	+ 10.0	- 1.2
Timing (chronostamp) data	- 0.9	+ 18.8	+ 1.9
Bleep (activity sampling) data	- 3.6	+ 4.7	-
Patient analysis data	+ 6.3	+ 14.7	-
Patient referral data	+ 7.9	+ 31.9	+ 4.4

In the case of Drs A and B the percentage changes were relatively small for each type of data. Dr. C who recorded rather larger percentage changes than the other two doctors, returned a particularly large increase in patient referral data.

Basic work load data

The number of patients attending at each surgery session and the number of home visits per day, were recorded by the receptionists on a routine basis for the two years before and one year after the opening of the experimental surgery premises for all three doctors (see Table 2(a) and 2(b)), page 20.

Information from a number of sources (Royal College of General Practitioners,1973) suggests that there is a trend in Britain for general practitioners to increase their surgery consultation rates and reduce the number of home visits. However in the study practice the doctors' surgery and home visiting rates changed in various ways.

Both the doctors (A and C) increased their surgery contact rate per patient since they commenced working in the new building. Dr. C reduced his home visiting rate whilst that of Dr. A increased. Dr. B (who remained in the main surgery) returned a constant surgery contact rate whilst his home visiting rate fell (Table 2(a) and 2(b)).

TABLE 2

(a) Total number of surgery consultations before and after the opening of the experimental surgery building

Doctor	1970-71	1971-72	1972-73
A	9,018	8,604	9,128
C	9,549	9,935	10,721
B	5,764	6,063	5,844
Total	24,331	24,602	25,693

(b) Total number of home visits before and after the opening of the experimental surgery building

Doctor	1970-71	1971-72	1972-73
A	3,056	2,933	3,279
C	787	831	594
B	1,370	1,266	725
Total	5,213	5,030	4,598

(c) Ratio of surgery consultations to home visits before and after the opening of the experimental surgery building

Doctor	1970-71	1971-72	1972-73
A	3:1	3:1	3:1
C	12:1	12:1	18:1
B	4:1	5:1	8:1

cont'd....

TABLE 2 (cont'd)

(d) Total number of surgery visits divided by average number of patients on list (see Table 1)

Doctor	Surgery contact rate per year per registered patient 1970-71	1971-72	1972-73
A	2.9	2.8	3.1
C	3.0	3.0	3.2
B	2.1	2.2	2.1
Total	2.7	2.7	2.8

(e) Total number of home visits divided by average number of patients on list (see Table 1)

Doctor	Home visiting rate per year per registered patient 1970-71	1971-72	1972-73
A	1.0	1.0	1.1
C	0.2	0.3	0.2
B	0.5	0.5	0.3
Total	0.6	0.6	0.5

Source : Basic work load data see page 19

STUDIES ON THE DISTRIBUTION OF PATIENTS', DOCTORS' AND NURSES' TIME IN SURGERY SESSIONS

Timing (chronostamp) study

For each patient attending the surgery during the six relevant study weeks the times of key events in the patient's visit to the surgery starting with the time of arrival and appointment time (if any), and ending with the time of departure were noted. The data were collected on a separate card for each patient and stamped with a chronostamp by each member of staff who saw the patient, i.e. a doctor, nurse, receptionist. The analysis of these data aimed to show how patients spent their time at the surgery; and to determine the numbers in the waiting room and consulting rooms at any time in the duration of the surgery session.

Results

1. Patients' average consulting time with the doctor

Both Drs A and C recorded slightly increased average consultation times per patient when working in the new surgery. In the case of Dr. A the increase was from 5.1 mins to 5.2 mins, and for Dr. C from 4.5 mins to 5.1 mins, while the average consulting time per patient of Dr. B (in the main surgery) was 5.5 mins in the 'before' study period and 4.8 mins after (Table 3). When the data for each recording period over the three years of the study were examined (Figure 1), Dr. A's returns showed no particular trend over time while Dr. C appears to have steadily increased his average consulting time in the before periods and stabilised it in the after situation despite his increased work load.

2. Patients' average consulting time with the nurse

Patients who saw Drs A and C, in the new building, were additionally receiving on average 3.3 mins of the practice nurse's time. (The figure in the first recording session after the building opened was higher, probably because the system had not had time to settle down.) The patient's total consulting time with the nurse plus the doctor after the new building had opened was approximately 8 mins for each doctor.

TABLE 3

COMPARISON OF THE RESULTS FROM THREE DOCTORS BEFORE AND AFTER THE OPENING OF THE EXPERIMENTAL SURGERY PREMISES

Doctor	Total number of surgeries	Average number of patients	Average minutes wait to see doctor per patient from appointment	Average minutes wait to see doctor per patient from arrival	Average minutes with nurse per patient	Average minutes wait to see the doctor per patient	Average minutes with doctor per patient	Average minutes per patient at surgery from appointment	Average minutes per patient at surgery from arrival
Dr.A Before	26	22.7	14.4	18.8	-	-	5.1	19.2	23.9
Dr.A After [1]	26	22.5	6.9	12.0	3.3	4.8	5.2	20.3	25.3
Dr.C Before	20	22.3	15.9	18.7	-	-	4.5	19.8	23.2
Dr.C After [2]	26	27.5	7.5 [3]	13.0 [3]	3.2 [3]	4.5	5.1	20.0	25.7
Dr.B Before	7 [4]	15.7	10.9	16.6	-	-	5.5	16.0	22.0
Dr.B After	22	16.0	8.1	13.0	-	-	4.8	12.9	18.0

[1] Dr. A - 1 time card did not have the time of arrival recorded and 4 patients did not see the doctor

[2] Dr. C was called out in the middle of one surgery

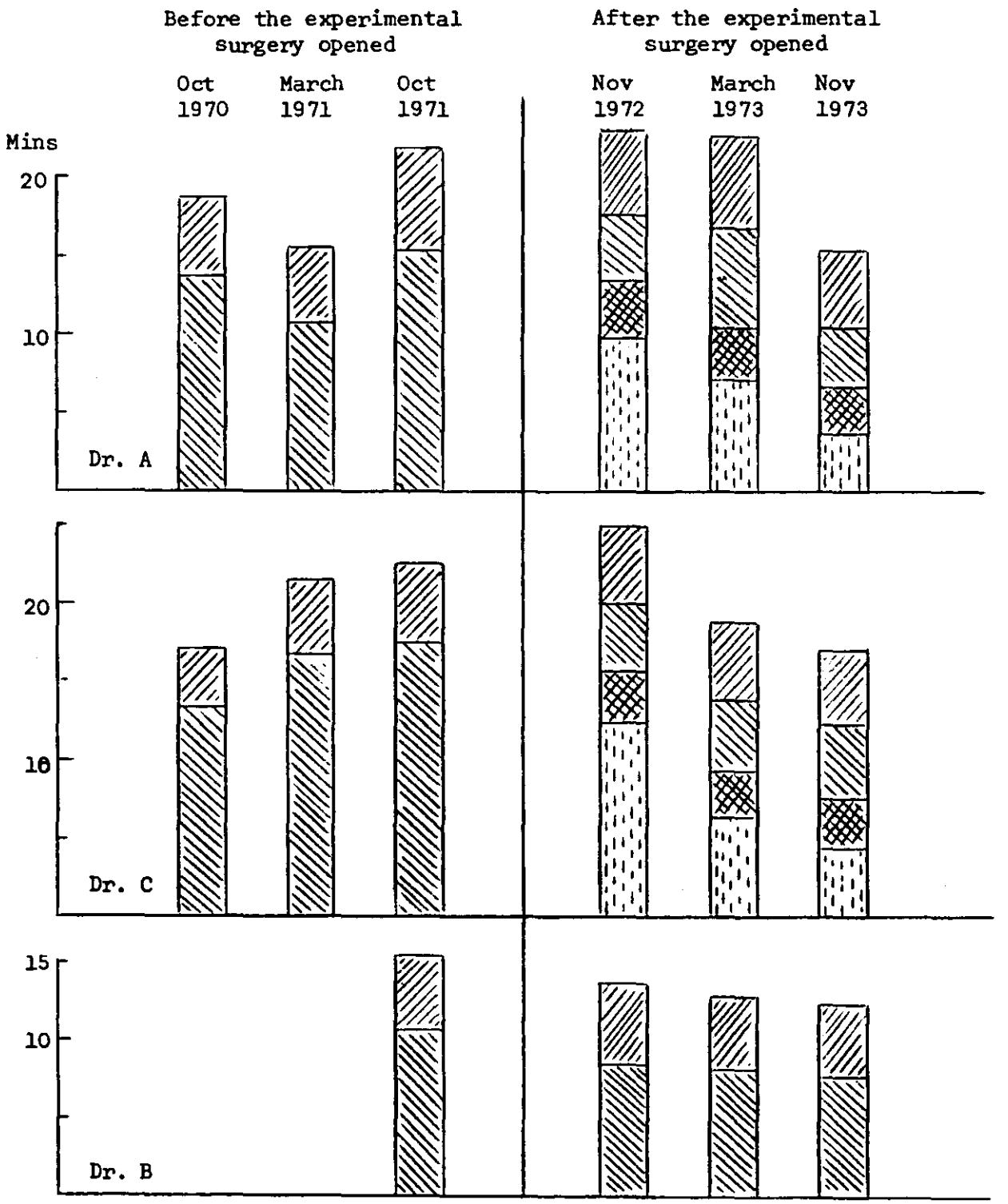
[3] 17 cards did not have recorded the time the patient spent with the nurse, so that the four columns (i) average minutes with nurse per patient and (ii) three wait categories, were calculated from the number of completed time cards

[4] Dr. B only recorded time data for one before period

Source : Timing (chronostamp) study see page 22

FIGURE 1

THE AVERAGE WAITING AND CONSULTING TIMES FOR PATIENTS IN THE SIX[1] RECORDING SESSIONS



Patients' average time with the doctor

Patients' average time waiting between the departure of the nurse and the arrival of the doctor

Patients' average time with the nurse

Patients' average waiting time from time of appointment

[1] Dr. B only recorded time data for one 'before' period

3. Patients' average waiting time

In the case of the patients attending the new surgery, their waiting time consisted of two periods :

i. waiting in the waiting room for the nurse to escort patients into the consulting room and prepare them for the doctor
ii. waiting in the consulting room between the departure of the nurse and the arrival of the doctor.

The average number of minutes each patient spent waiting (i.e. not receiving medical attention[1]) whether taken as starting from time of arrival or from time of appointment was lower for all three doctors when the new surgery was opened. (Readers are reminded that this can partly be attributed to the readjustment of the practice's appointment system in 1972).

Despite the two waiting periods for patients now attending the new surgery the total waiting time, measured from time of appointment was no greater than in the before period for both Dr A and C's patients, and in the last recording session considerably less.

4. The number of patients (i) in the waiting room and (ii) in the consulting rooms at various points in the duration of a number of surgery sessions

These numbers were obtained by noting the number of patients who, according to their time cards, were in the waiting room and in the consulting room respectively at certain points of time.

This analysis is concerned with the number of patients in the experimental surgery building and not the number of escorts accompanying them. It is confined to surgery sessions during the study periods when Drs A and C were both consulting at the same time in the new surgery.

Once the new system had settled down the waiting room appeared sufficient for its purposes and was seldom more than half full (see Figure 2). However in the first recording session just after the new surgery opened (October 1972) there were extended periods when there were on average ten or more patients in the waiting room (with 12 chairs). When the patients' escorts are taken into account the room must have been over full. The major congestion in the morning surgery occurred between 10.30 a.m. and 11.15 a.m. and in the evening surgery between 5.15 p.m. and 6.15 p.m. - in both cases during the second

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[1] Medical attention is defined as the patient having face to face

hour of the surgery's life.

Usually there were as many patients in the consulting rooms as in the waiting room at any time. Figure 3 shows that after the first quarter of an hour of a surgery there were nearly always four or more patients in the consulting rooms. This suggests that the nurses were running the system efficiently by keeping the rooms occupied - a situation made easier by their average consulting time being about one third less than that of the doctors.

Bleep (activity sampling) study

This is a form of activity sampling. It was used in all surgery sessions for one week during each period of detailed recording by the two doctors A and C, in the after phase of the study the surgery nurses also collected these data. The method consists of using an apparatus which emits a signal (or bleep) at regular intervals. When a bleep is heard the subject (doctor/nurse) enters his activity on a record sheet which contains a detailed list of different activities (see Appendix 1) performed by a doctor or a nurse during surgery consultations.

The bleep method is discussed further in two papers, the first giving details of the technique (Floyd and Livesey, 1975) and the second on its reliability (Bevan and Cunningham, 1975).

The analysis of the bleep data aimed to answer the questions :

i. How did the doctors redistribute their surgery time when consulting in the new premises compared with the situation when working in the traditional manner in the main surgery? and

ii. How did the nurses distribute their surgery time between the various activities when working in the experimental surgery building?

Results

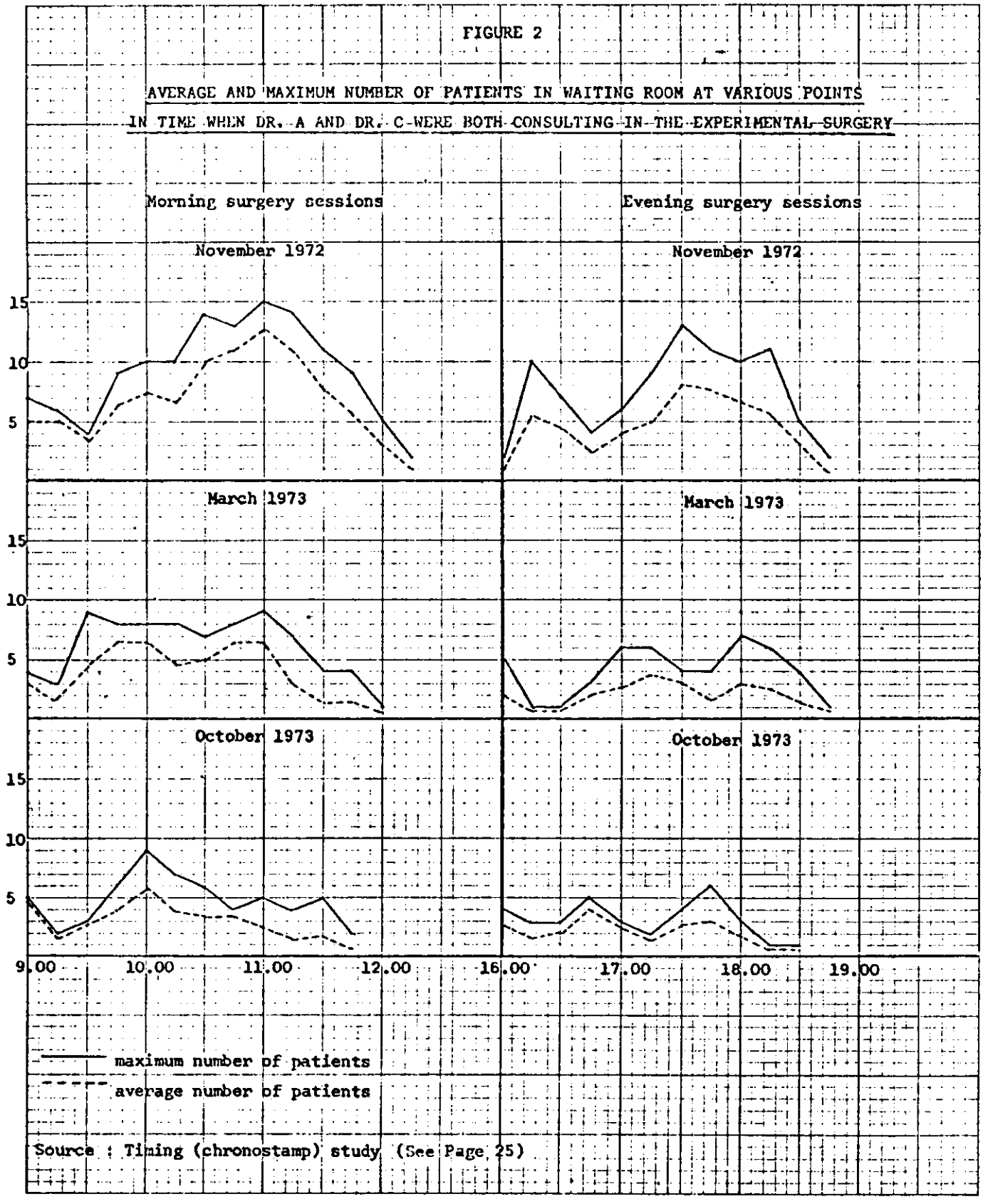
Allocation of doctors' and nurses time

It will be recalled (see page 22) that in the new surgery the doctors' average consulting time per patient was at least as great as before, quite apart from the additional time provided by the nurses.

For the purposes of analysis the doctors' and nurses' work in surgery sessions was divided into three broad categories.

FIGURE 2

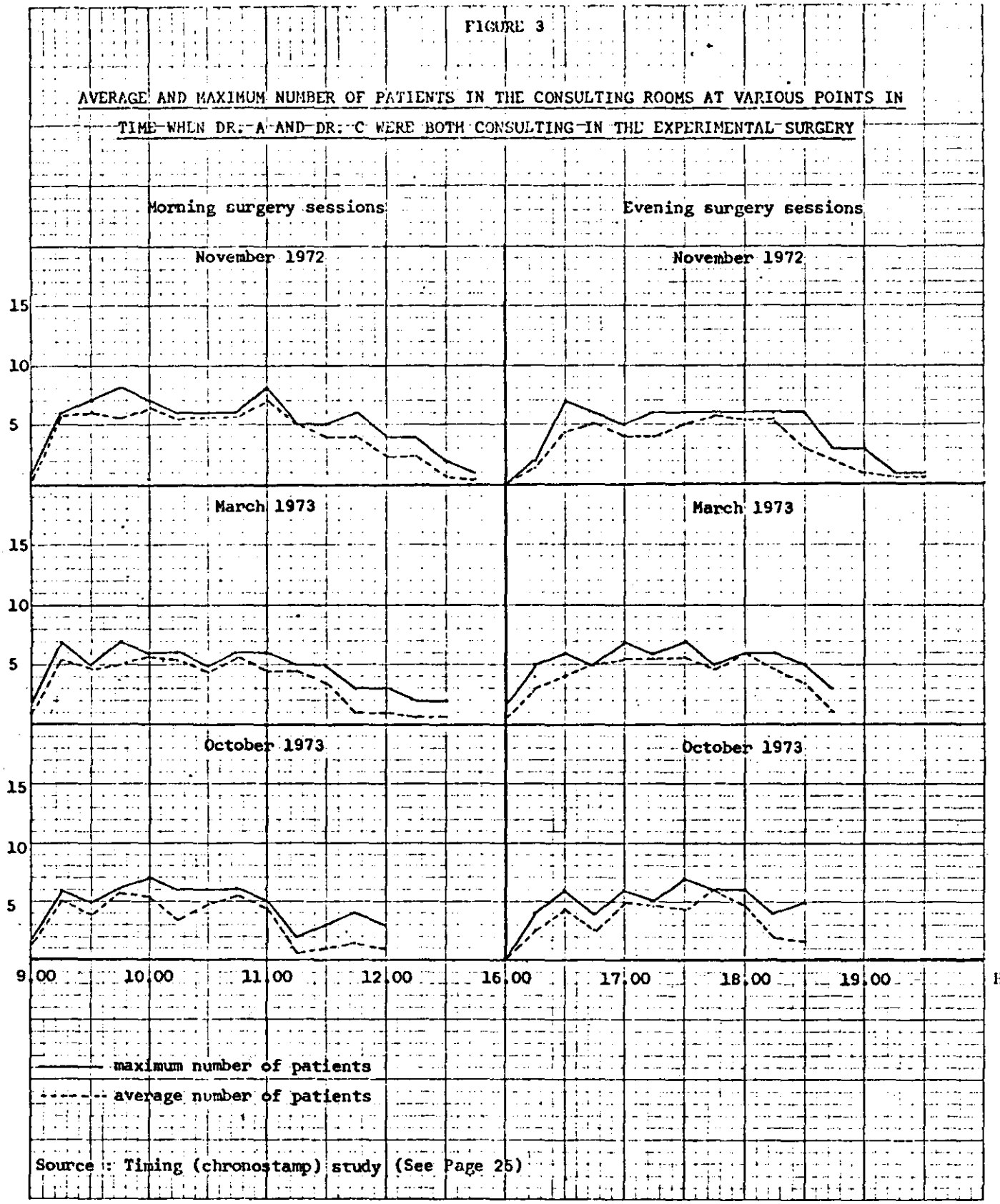
AVERAGE AND MAXIMUM NUMBER OF PATIENTS IN WAITING ROOM AT VARIOUS POINTS IN TIME WHEN DR. A AND DR. C WERE BOTH CONSULTING IN THE EXPERIMENTAL SURGERY



Source : Timing (chronostamp) study (See Page 25)

FIGURE 3

AVERAGE AND MAXIMUM NUMBER OF PATIENTS IN THE CONSULTING ROOMS AT VARIOUS POINTS IN TIME WHEN DR. A AND DR. C WERE BOTH CONSULTING IN THE EXPERIMENTAL SURGERY



Source : Timing (chronostamp) study (See Page 25)

a. Central tasks - i.e. talking and listening to patients and examining and treating them

The proportion of the time both doctors spent on these activities increased after the new surgery opened. The increase in Dr. A's case was from 37.6 per cent to 45.3 per cent of his surgery time while Dr. C increased his time from 61.7 per cent to 64.9 per cent (for detailed analysis of the different components of surgery work see Tables 4 and 5). In the new building central tasks occupied 28 per cent of the nurses' surgery time. The percentage of doctors' and nurses' time spent talking and listening to patients before and after the new building opened were as follows :

	Dr. A	Nurse	Dr. C	Nurse
Before	21.3%	-	48.6%	-
After	31.3%	20.0%	51.1%	18.1%

Listening and talking to patients took a higher proportion of both doctors' time, but especially Dr. A, after the experimental surgery building was opened. In addition the nurses spent approximately 20 per cent of their time talking or listening to them, so patients spent much more time in conversation with the doctor/nurse team in the new building (though there may have been some duplication).

The percentages of doctors' and nurses' time spent on examining patients before and after the new surgery was opened were as follows :

	Before Exam undertaken by doctor		After Exam undertaken by doctor		
	Doctor must do	Nurse could do	Doctor must do	Nurse could do	Exam undertaken by nurse
Dr. A	7.2	4.8	9.2	-	5.8
Dr. C	6.9	2.7	8.1	0.7	6.6

Examining patients occupied more time for both doctors and their associated nurses than the doctors had spent when working alone before the new building opened.

Moreover the doctors were spending much less of their time on examinations which it was practice policy that the nurse could appropriately do, and more on examinations which it was considered the doctor must undertake.

TABLE 4

PERCENTAGE OF DOCTORS' TIME SPENT DURING SURGERY SESSION ON DIFFERENT ELEMENTS OF CONSULTATION - BEFORE AND AFTER THE OPENING OF THE EXPERIMENTAL SURGERY PREMISES

	Dr. A		Dr. C	
	Before	After	Before	After
	%	%	%	%
Central tasks				
Listen to patients	6.9	13.8	26.6	28.0
Listen and write	0.8	1.3	2.2	2.8
Listen and other	0.2	0.5	0.1	0.1
Talk to patients	14.4	17.5	22.0	23.1
Talk and write	1.9	2.2	0.4	0.4
Talk and other	-	-	-	-
Examination doctor must do	7.2	9.2	6.9	8.1
Examination nurse could do	4.8	-	2.7	0.7
Treatment doctor must do	0.2	0.6	0.3	1.4
Treatment nurse could do	1.2	-	0.5	0.3
Total (central tasks)	37.6	45.1	61.7	64.9
Service tasks				
Gap/thinking	2.2	1.0	1.9	0.7
Walk/wash	0.5	4.6	2.1	6.4
Telephone	1.8	2.3	3.0	3.7
Write	33.5	26.0	18.5	14.6
Read	4.0	3.4	0.7	1.1
Search	4.2	5.2	1.4	0.9
Preparation	2.8	0.6	0.9	1.7
Listen to staff	-	0.5	0.3	1.0
Talk to staff	1.1	2.9	0.2	1.8
Total (service tasks)	50.2	46.5	29.0	31.9
Unproductive tasks				
Waiting between patients	10.6	8.1	6.6	2.2
Waiting for patients to undress/dress	1.5	0.3	2.7	1.0
Total (unproductive tasks)	12.1	8.4	9.3	3.2
Average surgery length	97.1 mins	109.8 mins	115.4 mins	131.9 mins
Average number of patients per surgery session	22	22	26	27
Number of surgery sessions	32	24	28	24

Percentages based on total surgery time excluding the time equivalent to missed bleeps. The number of missed bleeps as a percentage of total bleeps was : Dr. A 3.2 per cent before 1.4 per cent after; Dr. C 1.1 per cent before and 0.8 per cent after.

Source : Bleep (activity sampling) study see page 29

TABLE 5

PERCENTAGE OF NURSES' TIME SPENT DURING SURGERY SESSIONS ON DIFFERENT ELEMENTS OF CONSULTATION AFTER THE OPENING OF THE EXPERIMENTAL SURGERY

	Nurse working with Dr. A	Nurse working with Dr. C
	%	%
Central tasks		
Listen to patients	10.7	10.0
Listen and write	0.2	0.4
Listen and other	-	-
Talk to patients	9.3	8.1
Talk and write	0.2	0.3
Talk and other	-	-
Examination doctor must do	-	-
Examination nurse could do	5.8	6.6
Treatment doctor must do	-	-
Treatment nurse could do	2.6	2.5
Total (central tasks)	28.8	27.9
Service tasks		
Gap/thinking	0.3	0.2
Walk/wash	12.4	14.5
Telephone	2.6	4.0
Write	14.4	11.6
Read	2.1	3.5
Search	6.7	7.8
Preparation	4.4	4.8
Listen to staff	4.2	4.0
Talk to staff	6.8	5.5
Total (service tasks)	53.9	55.9
Unproductive tasks		
Waiting between patients	16.4	16.2
Waiting for patients to undress/ dress	0.7	0.2
Total (unproductive tasks)	17.1	16.4
Average surgery length	109.8 mins	131.9 mins
Average number of patients per surgery session	22	27

Percentages based on total surgery time excluding the time equivalent to the number of missed bleeps : Dr. A's nurse 4.8 per cent and Dr. C's 2.8 per cent.

Source : Bleep (activity sampling) study see page 29

The percentages of doctors' and nurses' time spent carrying out treatment procedures were as follows :

	Before		After		
	Treatments undertaken by a doctor		Treatments undertaken by a doctor		Treatmemts undertaken by nurse
	Doctor must do	Nurse could do	Doctor must do	Nurse could do	
Dr. A	0.2	1.2	0.8	-	2.6
Dr. C	0.3	0.5	1.4	0.3	2.5

Treatment procedures took up relatively little of the doctors' and nurses' time.

b. Service tasks - e.g. writing, reading, use of telephone etc. (see Tables 4, 5 and 6) which though generally necessary might take up less of the doctors' time if some of them were transferred to other members of the team.

Dr. A reduced his time on service tasks from 50.2 per cent to 46.8 per cent whereas Dr. C'sincreased slightly;29.0 per cent to 31.9 per cent.

Service tasks occupied approximately 55 per cent of the nurses' time in the new surgery.

The small amount of time spent by the doctors preparing to treat or examine patients was reduced after the oepning of the experimental surgery building (Dr. A 2.8 per cent before to 0.6 per cent after, Dr. C 0.9 per cent before to 1.7 per cent after) and the decrease was offset by these tasks being delegated to the nurses who spent approximately 4.5 per cent of their time in this activity.

c. Unproductive activity - i.e. waiting between patients, waiting for them to undress and dress. These inevitably take up time during a consultation but do not contribute to patient care.

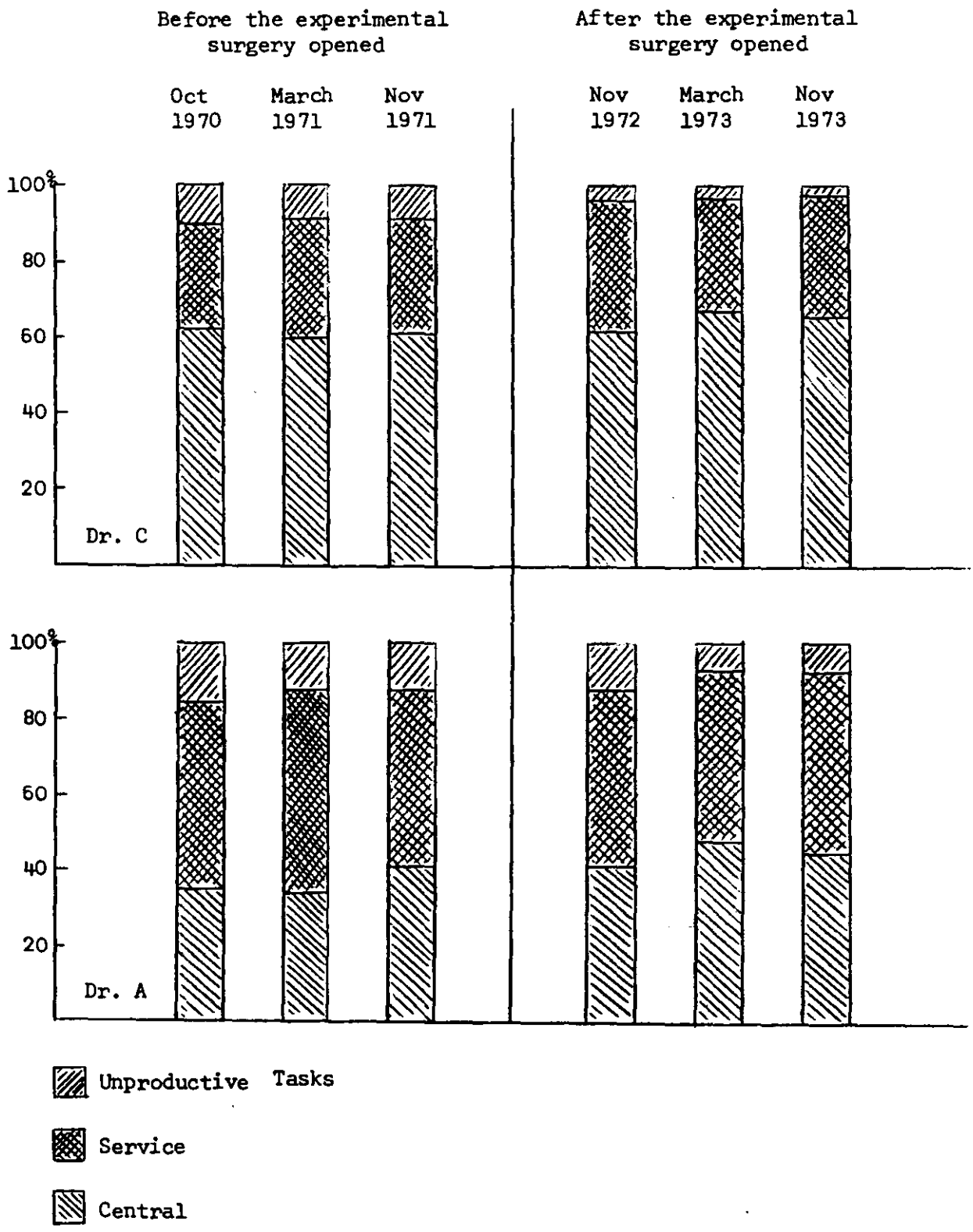
Doctor A reduced the proportion of time spent in the surgery on these activities from 12.1 per cent to 8.5 per cent and Dr. C from 9.3 per cent to 3.2 per cent.

Seventeen per cent of the nurses' time was spent waiting. This is probably largely a consequence of the difference between the lengths of the nurses' and doctors' consulting times.

So there was an increase in the doctors' time spent in 'central' tasks and a reduction for 'unproductive' tasks, while the time spent on 'service' tasks remained fairly constant (see Figure 4). In the first recording period after the opening of the new surgery there was very little change in the doctors' distribution of their surgery time, but in the two remaining recording periods when the new scheme had been functioning for several months. the redistribution of time away from 'unproductive' tasks towards 'central' tasks was more marked than a simple before and after comparison would suggest, In the case of the nurses, apart from the first session after the opening of the new surgery, the proportion of their time spent on 'unproductive' tasks decreased and they were spending relatively more of their time on 'central' and 'service' tasks (see Figure 5).

FIGURE 4

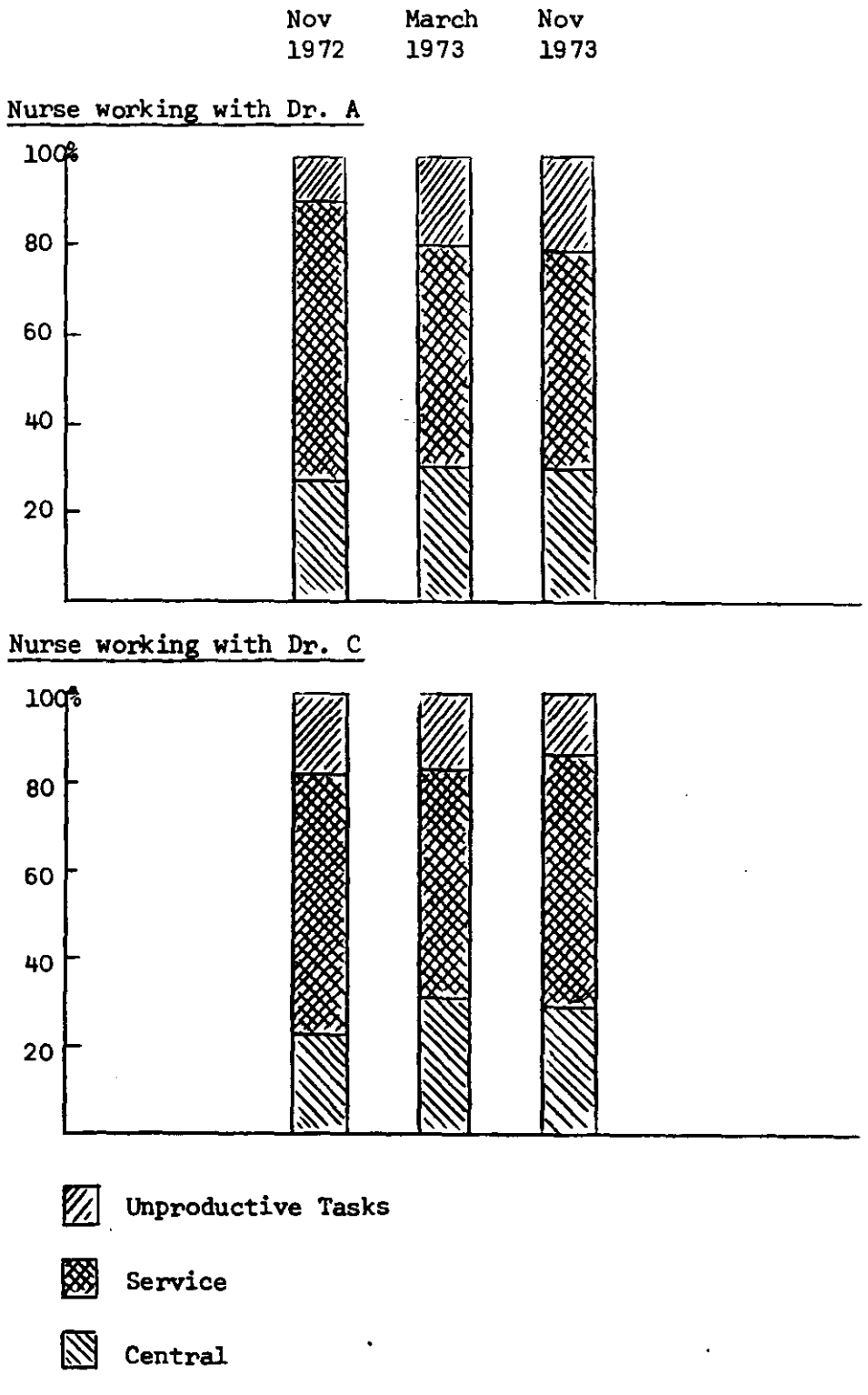
DISTRIBUTION OF THE DOCTORS' SURGERY TIME ACCORDING TO TYPE OF ACTIVITY IN THE SIX RECORDING SESSIONS



Source : Bleep (activity sampling) study see page 29

FIGURE 5

DISTRIBUTION OF THE NURSES' TIME ACCORDING TO TYPE OF ACTIVITY IN THE THREE RECORDING SESSIONS AFTER THE OPENING OF THE EXPERIMENTAL SURGERY PREMISES



Source : Bleep (activity sampling) study see page 29

THE CONTENT AND CONSEQUENCES OF CONSULTATIONS

In this section information from the patient analysis and patient referral studies are considered. Both these schemes involved the collection of data for each patient visiting the surgery during the relevant study periods (see Chart 3).

One item of information collected in both schemes was 'type of consultation'. The following scheme of classification was used :

1. Patient initiated contacts

a. New contacts - the patient presents for the first time with a new complaint.

b. Repeat patient contacts - the patient has returned himself within a month of his last consultation for the same condition. At his previous consultation he was either discharged, or told to return if necessary (effectively discharged), or told to return after a period of time but has returned before that time.

c. Second opinion - the patient who returns to see another doctor in the practice with the same condition. The number of patients in this group was so small that they were included with the repeat patient contacts in the subsequent analysis.

2. Doctor initiated contacts

At a previous consultation the doctor has invited these patients to return after some specified time interval. Usually this will lead to the patient making a further appointment before he leaves the surgery (referred to as repeat doctor contacts on data collection forms).

The patient analysis study

Information was collected for each patient visiting Dr. A and Dr. C at the surgery over one week[1] during each period of detailed recording on certain aspects of the content of the consultation. The data for each attendance were entered by the doctor or nurse as appropriate on a separate card (see Appendix 1) and in particular included the following items :

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[1] Patient analysis data were collected for two weeks in the first recording sessions only and the results for these two weeks were averaged to provide comparable 'weekly' data.

Presenting complaints - classified according to the two digit classification of morbidity of the Royal College of General Practitioners (1963 revision) slightly adapted

Type of consultation - see page 36

Type of examination

Type of treatment

In the case of both examinations and treatments the range of possible procedures were divided (by C.B.F.) into two groups :

a. those the doctor would invariably do, and

b. those the nurse could normally do.

These data were collected in order to compare the average numbers of examination procedures and treatments undertaken per contact before and after the opening of the experimental premises; also their distribution between those the nurses could do and those the doctor must do (see Predictions 3 and 4).

Results

Examinations

The pattern of examinations in any period would be affected by the mix in types of complaints presenting.

The distribution of surgery contacts by diagnosis was quite similar for both doctors (see Table 6) in the before and after recording periods although diseases of the respiratory system rose from 24 per cent to 31 per cent for Dr. A and from 23 per cent to 27 per cent for Dr. C. The minor differences between the distribution by diagnostic categories for Drs A and C reflected the different characteristics of their patient lists e.g. Dr. A's patients on average were somewhat older than Dr. C's. The changes in the after situation compared with before in as far as they might be expected to affect the need for examinations seemed to be in the same direction and of the same order of magnitude for both doctors, whose results are thus treated together in the text.

After the new buildings opened there was an increase of 20 per cent in the total number of individual examination procedures per surgery contact, inspite of the number of patients seen per week in the new surgery being about seven per cent higher. The increase came not so much through the number of different people receiving some examination procedure but from more examinations actually being carried out on those examined. The increase was most marked in the number of patients who received three or more examination procedures (6 per cent before to 18 per cent after).

TABLE 6

DISTRIBUTION OF DIAGNOSES FOR SURGERY CONTACTS

	Dr. A		Dr. C	
	Before	After	Before	After
	%	%	%	%
Diagnosis				
Communicable diseases	5.5	0.7	1.3	2.0
Neoplasms	0.4	0.3	0.5	0.4
Allergic, endocrine system, metabolic and nutritional diseases	3.0	1.8	2.2	3.1
Diseases of blood and blood forming organs	3.0	1.3	0.6	0.4
Mental, psychoneurotic and personality disorders	2.5	3.3	9.6	8.2
Diseases of nervous system and sense organs	3.5	1.1	5.2	4.3
Diseases of circulatory system	10.2	11.6	4.5	7.7
Diseases of respiratory system	24.0	31.1	22.5	26.8
Diseases of digestive system	7.2	9.8	10.9	11.9
Diseases of genito-urinary system	5.8	7.7	8.4	7.5
Deliveries and complications of pregnancy, childbirth and puerperium	0.4	1.1	3.7	2.2
Diseases of skin and cellular tissue	7.9	6.4	13.5	10.3
Diseases of bones and organs of movement	9.7	8.3	11.1	10.3
Congenital malformations	0.1	-	-	-
Certain diseases of early infancy	0.4	-	0.2	-
Symptoms and ill defined conditions	4.4	7.5	0.1	0.1
Examination	0.7	0.3	0.3	0.3
Social and preventative measures	2.3	1.6	0.9	0.4
General medical advice	2.3	0.2	2.2	2.4
Accidents, poisoning and violence	3.2	3.0	0.5	0.6
Other	3.6	2.8	1.6	1.1
Total number of contacts on which percentages based	622	611	665	717

Note: Occasionally more than one diagnosis per contact was recorded

Source : Patient analysis study see page 37

Examinations undertaken before were entirely made by the doctors although 25 per cent of them could have been undertaken by the nurses. In the after situation 36 per cent of examinations were of this kind and the bleep (activity sampling) study has suggested that virtually all of these were undertaken by the nurse. (The patient analysis card only recorded what was done during consultation and not who did it.) In fact the increase in the number of examinations per contact in the new surgery was entirely attributable to procedures in the category which the nurse could do and probably did.

Table 7 shows the changes in distribution of various types of examination procedures. The increases were almost entirely concentrated in five categories, T.P.R. (temperature, pulse and respiration), blood pressure and weighing, which were usually undertaken by the nurse, and the examinations of the upper respiratory tract, and heart/lungs, always undertaken by the doctor. Otherwise changes noted either way in any category were small in absolute terms.

One of the objectives of the new surgery system was to facilitate examination of patients. Table 8 shows the percentage of patients receiving examinations in each of the categories 'new', 'repeat patient' and 'repeat doctor' contacts. It appears that in the new surgery patients attending as 'new' contacts were more likely to be examined. Note that although the increases in the percentages of 'repeat patient' contacts who were examined were much greater, the number of 'repeat patient' contacts was very small relative to other types in the 'new surgery' situation.

Treatment

In the bleep (activity sampling) data it was found that both the doctors and the nurses spent very little of their time undertaking treatment procedures (see page 32). The percentages of contacts in the patient analysis data who received 'treatment' in a normal surgery were also fairly small in the before and after recording periods and were as follows, Dr. A 10 per cent 'before' compared with 7 per cent 'after', and Dr. C 5 per cent 'before' and 8 per cent 'after'.

There were slight differences between the two doctors. The percentage of Dr. A's contacts who received treatment either from himself or a nurse was lower in the new surgery whereas the proportion of Dr. C's patients receiving treatment increased. In both cases most of the treatments were

TABLE 7

DISTRIBUTION OF EXAMINATION PROCEDURES BY TYPE OF EXAMINATION AND BY DOCTOR

	Dr. A		Dr. C	
	Before	After	Before	After
	%	%	%	%
Type of examination				
Temperature*	7.9	14.4	6.1	15.3
Blood pressure*	15.1	16.5	4.1	9.7
Weigh*	5.5	8.8	3.6	5.5
Urine test/sample*	1.3	1.5	0.3	0.9
Eye test*	0.2	0.4	0.3	0.1
Taking of blood*	0.7	-	0.1	-
Ears	3.4	4.3	8.6	6.8
Upper respiratory tract	13.3	14.3	9.3	8.2
Chest/lungs	16.7	15.1	19.8	16.8
Heart	4.4	2.5	0.9	1.7
Abdomen	4.5	4.8	12.4	8.5
Per vagina	1.3	0.6	4.1	3.9
Per rectum	0.2	0.8	0.7	1.0
Central nervous system	1.3	0.1	0.3	0.4
Orthopaedic	6.9	4.5	9.4	6.8
Face	1.2	-	0.9	-
Eyes	3.9	2.7	3.1	1.6
Glands	0.7	0.7	0.1	1.9
Skin	9.5	7.4	15.4	10.7
Other	1.8	0.6	0.4	0.3
Total number of examination procedures on which percentages based	822	715	701	800

* Examination procedures which the nurse could undertake. The remainder were the examination procedures which the doctor must undertake.

Source : Patient analysis study see page 39

TABLE 8

PERCENTAGE OF SURGERY CONTACTS FOR WHOM AT LEAST ONE EXAMINATION PROCEDURE WAS UNDERTAKEN

	Before		After	
	Dr. A	Dr. C	Dr. A	Dr. C
	%	%	%	%
Type of consultation[1]				
New	85.9 (269)	79.1 (331)	90.5 (252)	82.7 (323)
Repeat patient	65.2 (66)	60.5 (81)	80.6 (31)	86.6 (67)
Repeat doctor	70.4 (196)	50.3 (179)	70.8 (267)	59.9 (262)
All types	79.2 (531)	67.2 (591)	80.4 (550)	73.6 (652)

The number in brackets is the total number of consultations, of the stated type, on which the corresponding percentage is based.

Source : Patient analysis study see page 37

[1] see page 36

of a kind which the nurse could undertake (for example administering injections) and the bleep data (page 32) suggests that in the new surgery she did so.

The patient referral study

Information on the type of consultation and decisions taken about whether or not to recall or refer the patient was collected for each surgery contact by the three doctors for the whole of each month of detailed recording.

The data for a surgery session were collected on a single sheet (see Appendix 1) one line of which was used for each contact, entries being made by ticking the appropriate columns. Facts collected were as follows :

i. type of consultation (as described on page 36)

ii. whether the patient was discharged or asked to return (and if so in how many days)

iii. whether referred to other health service facilities or staff

iv. whether a prescription was issued.

These data were collected in order to examine whether the opening of the experimental surgery premises was associated with any change in the distribution by type of contacts and also to see whether the doctor's recall and referral pattern had changed.

Results

Type of consultation

Table 9 shows that the total surgery contact rate increased[1] for each doctor following the opening of the experimental premises. In particular when the number of new contacts only are considered Dr. A and Dr. B reported an increase of seven per cent while Dr. C saw 26 per cent more 'new' contacts. However the percentage of the total number of surgery contacts classified as new was much the same for each doctor 'before' and 'after'.

Both the doctors using the new premises but especially Dr. A recorded an increased proportion of repeat doctor contacts and a reduced proportion of repeat patient contacts when working there. Dr. B (in the main surgery) reported relatively stable proportions of repeat doctor and repeat patient contacts throughout the study. Repeat patient contacts (for definition see page 36) can be regarded as arising from those patients who felt they had

[1] In the periods when patient referral data were being collected.

TABLE 9

DISTRIBUTION OF SURGERY CONTACTS BY THE TYPE OF CONSULTATION AND BY DOCTOR

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Type of consultation						
New	54.9	54.6	57.1	54.7	70.9	73.0
Repeat patient	26.1	10.1	12.8	8.5	11.1	10.2
Repeat doctor	19.0	35.3	30.1	36.8	18.0	16.8
Total number of surgery contacts on which percentage is based	2,513	2,713	2,376	3,136	1,435	1,496

Source : Patient referral study see page 42

been inadequately dealt with at a previous consultation. Thus the reduction in the proportion of repeat patient contacts seen in the new surgery could be an indication of more effective care, or simply because patients were brought back more often.

The outcome of consultations

a. Recall and discharge of patients

The percentage of surgery contacts who were asked to return to see the doctor is shown in Table 10; those not recalled were discharged. The doctors' recall patterns changed in different ways. Dr. A in the new surgery asked a higher proportion of his new patients and lower proportions of both types of repeat contact to return to see him. There was a tendency for him to ask those patients he recalled (in the new and repeat doctor groups) to come back earlier. Dr. C asked a slightly lower proportion of his new and repeat patient contacts to return to the surgery and a higher proportion of his repeat doctor contacts to come back to the surgery. Generally he tended to ask his patients to return after longer intervals especially in the repeat doctor category. Dr. B (in the main surgery) asked slightly lower proportions of his new and repeat doctor group to return, but a higher proportion of the repeat patient category. Like Dr. C his recall interval had also increased especially for repeat doctor contacts.

Although the changes in all these proportions were small the results suggest that Dr. A generated the increased volume of his repeat doctor contacts by asking new patients to call back (rather than by asking his repeat doctor patients to come yet again).

Dr. C appears to have generated his increased volume of 'repeat doctor' contacts by asking more of them to come again,

The ratio of the number of all discharges in a given period to the number of repeat patient consultations was next examined (see Table 11). When considering this ratio the assumption is made that results from recording periods are similar to those for adjacent weeks during which some of the recorded repeat patient contacts 'originated'. On this assumption the higher this ratio the more often are patients discharged without their feeling the need to return. These ratios were higher for all three doctors after the new surgery had opened, but especially for the two doctors working in the new surgery. The ratio had always been relatively high for Dr. B. This suggests that in the after period, particularly for the patients of Drs A

TABLE 10

DISTRIBUTION OF SURGERY CONTACTS BY DECISION TO DISCHARGE OR RECALL BY DOCTOR AND BY TYPE OF CONSULTATION

	Before			After		
	New	Repeat patient	Repeat doctor	New	Repeat patient	Repeat doctor
	%	%	%	%	%	%
Dr. A's decision						
Return surgery - <7 days	24.7	28.3	30.8	30.2	28.5	29.5
- 7/14 days	9.1	20.1	18.8	7.8	16.1	15.1
- 15/28 days	6.2	9.0	16.5	8.8	10.6	17.6
- 1 month +	2.0	3.3	3.8	1.1	1.8	1.2
Home visit	-	-	-	-	-	-
Discharge	57.9	39.2	30.1	52.2	43.1	36.6
Total number of surgery contacts on which percentage is based	1,379	656	478	1,480	274	959
Dr. C's decision						
Return surgery - <7 days	8.8	27.0	15.9	6.8	23.9	11.0
- 7/14 days	9.4	13.1	12.4	8.3	10.8	11.1
- 15/28 days	6.3	6.2	28.8	7.3	6.0	29.4
- 1 month +	0.4	0.7	10.2	1.4	2.2	18.7
Home visit	0.1	-	-	-	-	-
Discharge	75.1	53.0	32.7	76.1	57.1	29.7
Total number of surgery contacts on which percentage is based	1,356	304	716	1,715	268	1,153
Dr. B's decision						
Return surgery - <7 days	22.0	36.5	30.1	20.7	32.7	22.7
- 7/14 days	4.3	7.5	10.0	3.2	11.8	8.4
- 15/28 days	1.2	3.1	2.7	1.7	4.6	8.8
- 1 month +	1.3	2.5	3.1	1.7	4.6	4.0
Home visit	-	-	0.4	-	0.6	-
Discharge	71.2	50.3	53.7	72.6	45.8	56.2
Total number of surgery contacts on which percentage is based	1,017	159	259	1,092	153	251

Source : Patient referral study see page 44

TABLE 11

RATIO OF THE TOTAL NUMBER OF DISCHARGES TO REPEAT PATIENT CONSULTATIONS

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
Number of discharges	1,200	1,241	1,413	1,801	943	1,004
Number of repeat patient consultations	656	274	304	268	159	153
Ratio of discharges to repeat patient consultations	1.8:1	4.5:1	4.7:1	6.7:1	5.9:1	6.6:1

Source: Patient referral study see page 47

and C a lower proportion of those discharged were returning themselves for further assistance.

An indication of the extent to which doctor's 'output' is keeping pace with new demands is given by the ratio of discharges to new contacts. The ratio of discharges to new contacts for Dr. A was 0.87:1 before and 0.84:1 when the new surgery was operating. Dr. C's ratio on the other hand was 1.04:1 'before' and 1.05:1 'after' in spite of a greatly increased volume of new contacts. Dr. B's discharges:new contacts ratio also changed very little over the period of the study, 0.93:1 'before' to 0.92:1 'after' (see Table 12). The price Dr. A paid for increasing his discharge: repeat discharge ratio was to generate an increased contact rate for himself. However throughout the study period Dr. C's discharge rate just exceeded his new contact rate so that his output of discharge patients was not only keeping pace with his input of new contacts, but a lower proportion of those discharged were coming back for further help.[1]

b. Referrals to agencies other than the general practitioners themselves

Table 13 shows the percentages of contacts at which referrals to hospital/other staff or agencies were made by the general practitioners. The proportion of patients for whom there were no referrals was higher before the opening of the new surgery for Dr. A (84 per cent 'before' and 78 per cent 'after') and Dr. B (89 per cent 'before' and 86 per cent 'after'), while for Dr. C the proportion remained at 87 per cent.

Apart from outpatient referrals, requests for pathology analyses and (when the new surgery was opened) referrals to the surgery nurse, the numbers of any other type of referrals were very few for all three doctors both before and after the opening of the new surgery.

The doctors each referred a slightly higher proportion of their contacts to outpatient departments following the opening of the surgery especially among new and repeat patient contacts for Dr. A and among new and repeat doctor contacts for Dr. C and Dr. B.

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[1] Note in the case of Drs A and B whose discharge:new contact ratios were persistently less than one, this need not imply that their work load was building up exponentially, since not all those asked to return would in fact do so, e.g. because they recovered or failed for some other reason to make a further appointment.

TABLE 12

RATIO OF TOTAL NUMBER OF DISCHARGES TO NEW CONSULTATIONS

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
Number of discharges	1,200	1,241	1,413	1,801	943	1,004
Number of new consultations	1,379	1,480	1,356	1,715	1,017	1,092
Ratio of discharges to new consultations	0.87:1	0.84:1	1.04:1	1.05:1	0.93:1	0.92:1

Source : Patient referral study see page 47

TABLE 13

DISTRIBUTION OF ALL SURGERY CONTACTS BY WHETHER REFERRED TO ANY AGENCY BY DOCTOR

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Referrals						
No referral	84.4	77.6	86.6	86.8	89.1	86.3
Hospital inpatient	0.5	0.3	0.1	0.4	0.3	0.5
Hospital outpatient	5.4	6.6	2.6	2.8	3.9	4.7
Psychiatrist	-	0.1	0.1	0.2	0.1	0.1
Surgery nurse	0.3	3.2	1.0	2.7	0.1	0.1
District nurse	0.3	0.3	1.0	0.3	0.3	0.7
Health visitor	-	-	0.6	0.2	0.1	0.4
Clinic	0.4	0.5	2.2	1.3	0.3	0.4
Other doctor	0.1	0.4	0.8	0.2	0.1	0.1
Pathology laboratory/x ray	7.8	8.6	3.9	4.4	5.2	4.8
Domiciliary visit by consultant	-	-	-	-	-	-
Other	0.9	2.2	1.1	0.7	0.5	1.9
Total number of surgery contacts on which percentages based	2,513	2,713	2,376	3,136	1,435	1,496

Source : Patient referral study see page 47

Dr. A and C slightly increased the proportion of their patients for whom the pathology services were used, while the corresponding proportion for Dr. B's contacts declined. The increase in the case of Drs A and C was mainly located among the new contacts. This increase may possibly be a consequence of the surgery staff and facilities available in the new surgery.

As would be expected Drs A and C reported an increased referral rate of contacts to the surgery nurse with whom they worked in the new surgery. Previously the number of referrals to surgery or other types of nurse was negligible for all three doctors. Dr. B's referral rate to the surgery nurse remained very small throughout the period of the study.

Generally Dr. A (in the new surgery)and to a lesser extent Dr. B (still working in the main surgery premises) were referring higher proportions of patients to other agencies, than in the 'before' phase of the study, in the case of all three types of consultation (new, repeat patient, and repeat doctor); while the corresponding referral rates of Dr. C (working in the new surgery) were virtually unchanged (see Table 14).

Prescriptions

It had been hoped that earlier examination and diagnosis would result in a reduction in the amount of prescribing and its total cost. Unfortunately data were collected only on whether a prescription was given or not and did not include the number of items prescribed. It was also found to be impossible to obtain detailed costs on prescriptions from the pricing bureau.

Our limited information (see Table 15) shows there was some variation between the doctors but nothing to suggest any effect which might be ascribable to the new surgery and its method of working.

TABLE 14

PERCENTAGES OF SURGERY CONTACTS IN THE THREE TYPES OF CONSULTATION CATEGORIES WHO WERE REFERRED TO ONE OR MORE AGENCIES OTHER THAN THE DOCTOR

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
Type of consultation						
New	14.2 (1,379)	21.8 (1,480)	13.6 (1,356)	14.1 (1,715)	11.0 (1,017)	13.4 (1,092)
Repeat patient	16.2 (656)	23.2 (274)	16.3 (304)	15.3 (268)	18.9 (159)	20.3 (153)
Repeat doctor	18.9 (478)	22.9 (959)	11.8 (716)	11.4 (1,153)	5.8 (259)	10.8 (251)

The number in brackets is the total number of consultations, of the stated type, on which the corresponding percentage is based.

Source : Patient referral study see page 47

TABLE 15

PERCENTAGE OF SURGERY CONTACTS AT WHICH A PRESCRIPTION WAS ISSUED BY DOCTOR AND BY TYPE OF CONSULTATION

	Dr. A		Dr. C		Dr. B	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Type of consultation						
New	88.1	90.1	84.1	76.2	79.4	86.7
Repeat patient	70.3	77.7	76.6	71.6	50.9	73.9
Repeat doctor	74.5	79.3	71.0	73.2	44.4	48.2
Total	80.9	85.0	79.2	74.7	69.9	78.9

Source : Patient referral study see page 50

SUMMARY OF FINDINGS OF WORK LOAD STUDIES

Summary

1. The system appeared to function efficiently in terms of patients' average waiting time and levels of congestion in the new surgery (see Prediction 1) (timing (chronostamp) study see page25).

2. The doctors spent at least as much time with the patient as before (timing (chronostamp) study see page 22), but redistributed it so that a greater proportion was spent on 'central' tasks in the new building (see Prediction 2) (bleep (activity sampling) study see page 29).

3. The nurses' involvement had the effect of increasing the patient's total consulting time by an average of three minutes (timing (chronostamp) study see page 22).

4. After the new building was opened there was an increase of 20 per cent in the total number of examination procedures per surgery contact (for Drs A and C). The increase was due more to an increase in the number of procedures per person examined than to an increase in the proportion of contacts at which an examination took place (see Prediction 3) (patient analysis study see page 37).

5. The nurses by taking over selected examinations and treatments have almost eliminated the time spent on these by the doctor (see Prediction 4) (bleep (activity sampling) study see page 39 and 32).

6. Most of the increase in examination procedures fell into the category which, in this practice, it had been agreed the nurse could undertake and the bleep (activity sampling) data has suggested that she did in fact take over virtually all such work from the doctors in the new surgery (Prediction 4) (patient analysis study see page 39).

7. The patient analysis data taken in conjunction with that of the bleep (activity sampling) study suggested that virtually all treatment procedures were of a kind which the nurse could undertake and that she did in fact do so for Drs A and C when they were working in the new surgery (Prediction 4) (see page 32).

8. In the new surgery examinations tended to be more concentrated in the patient initiated classes of contact (patient analysis study see page 39).

9. Drs A and C recorded reduced proportions of repeat patient contacts when working in the new surgery and increased proportions of repeat doctor

contacts (there was no change in the case of Dr. B). For both doctors A and C the ratio of discharges to repeat patient contacts increased. In the case of Dr. A the increase was achieved at the expense of a slightly lower rate of discharge in relation to new patients attending, but if anything the reverse was true of Dr. C. Thus there was some support for Prediction 5 in the case of Dr. C while in the case of Dr. A it is difficult to decide whether the change in the proportion of patient initiated contacts was a consequence of Prediction 5 being fulfilled as distinct from his simply following a policy of more frequently recalling patients (patient referral study see page42).

10. The doctors working in the new surgery were referring about three per cent of their patients back to the surgery nurse (all of them would have seen a nurse in the course of the main consultation - previously hardly any referrals to the practice or other types of nurse had been noted) (patient referral study see page50).

11. The doctors working in the new surgery appeared to be requesting pathology tests for an increased proportion of contacts (especially new contacts) - possibly a consequence of the convenience of the new building and/or of earlier examinations (patient referral study see page50).

SURVEYS OF PATIENTS' OPINIONS

Introduction

However efficient an innovation in general practice may be, its success depends upon being acceptable to patients generally. Hence the need in this study for surveys to investigate patients' reactions.

Patients' opinions were sought about the new surgery premises and its associated method of working which it will be recalled involved the following innovations :-

i. The new physical environment of the experimental surgery

ii. The introduction of a new method of working for a doctor/nurse team.

Methods used

Postal and interview surveys were used to study patient opinions two years before and six months after the experimental surgery was opened. The two methods of questioning the patients were employed for the following reasons :-

i. by asking the same questions in different ways it would to some extent check whether the manner of asking questions affected patient responses

ii. the relatively cheap postal method could be used to approach a large number of patients in a fairly simple way while information so obtained could be complemented by asking a smaller group about their experiences and opinions via interview enquiries.

The structure of the 'before' and 'after' enquiries is as shown in Chart 4 which also shows the numbers of patients selected for the surveys and the response rates. In all cases except, of course, in the follow up studies a systematic random sampling scheme was used. The practice secretary drew the samples using the patients' medical record cards. These are filed for the whole practice according to their sex and in alphabetical order.

In the 'before' samples patients in the age range 18-64 years were included. Patients over 65 years were excluded as they had been fairly intensively studied in a recent project (Lance, 1971).

In the 'before' interviews Dr. C's patients alone were approached as at that time he only was committed to working in the new surgery.

By undertaking a before and after study it was possible to examine whether the patients' attitudes changed as a result of their experience of the experimental surgery scheme. Thus the original postal and interview respondents were approached again after the new surgery was functioning. However there are problems known to be associated with following up a population of respondents through time; for example, the ageing of the respondents and the fact that the 'survivors' may be atypical in their willingness to participate in two surveys.

The new postal sample was drawn from the practice population over the age of 18 and would be representative of this section of the practice population six months after the opening of the experimental building. It was considered that by then there had been sufficient time lapse from the earlier study of Lance (1971) for the inclusion of patients aged 65 years or more. On this occasion a relatively large random sample was used as it seemed particularly important to base an assessment of patients' opinions, on the new system, on as representative a sample of the adult practice population as possible. For the 'new' interview sample it was decided to concentrate attention on sections of the practice population who were known to be higher users of general practitioner services i.e. patients (a) aged over 65 years ('the over 65s') and (b) mothers of children aged five years and under ('mothers of young children'); on this occasion patients of all three doctors were included.

The response to the patient surveys

Response rates

The effective response rates for the various surveys are given in Chart 4 (the rate is in each case calculated after subtracting from the total sample approached those definitely known to have moved away, died, or registered with another outside the practice).

A comparison of the respondents with the samples approached and the practice population studied

These groups of patients are compared where appropriate in respect of their distribution by age, sex and by doctor with whom registered (see Appendix 3 Tables 1-8). The information about the age/sex distribution of the practice population relates to the situation as at March 1974[1]. An examination of data in Lance (1971) suggests that over the period of the present study the proportion of males to females in the practice population

[1]Obtained by counting the patients' record cards held by the practice at that time.

was unchanged; the proportion of patients over 65 years and under ten years respectively seem also to be unchanged; however, it does appear that there had been an increase over the study period in the proportion of patients in the 11-44 years age group and a decrease in the proportion of those in the 45-64 years age range. During the study period the proportion of the practice population registered with Dr. C increased slightly from 36 per cent to 38 per cent while the proportion registered with Dr. A declined slightly from 34 per cent to 32 per cent and Dr. B's list size remained constant.[1] (It will be recalled that the total list size was almost unchanged.)

The before postal sample

Of the practice population aged 18-64 years 48 per cent were male compared with 47 per cent of the original sample and 45 per cent of the respondents (see Appendix 3 Table 1). There was a relative deficiency in those aged 25-44 years among the respondents and a relative excess of those aged 45-64 years compared with the practice population aged 18-64 years (in March 1974). This discrepancy is partly attributable to the changing age structure of the practice population noted on page 54, but also to the pattern of non response (see Appendix 3 Table 1) besides the usual problem of the 'effects of sampling'. The distributions by doctor (with whom registered) of the members of the sample approached and of the respondents were very similar (see Appendix 3 Table 8). However in both cases patients of Dr. A were over represented while those of Dr. B and C were under represented in comparison with the practice population aged 18-64 years (as at March 1974). The same remarks apply if the sample approached and the respondents are compared with the whole practice population (based on Executive Council quarterly returns) at any point throughout the study period. The most likely explanation for these differences, given their direction and the remarks on page 54, would appear to be simply the effects of sampling from the patients' medical record cards, stored, as they were, in alphabetical order for the whole practice.

The 'before' interview sample (selected from the patients of Dr. C only)

The age/sex distribution both for the sample approached and for the respondents was similar to that of Dr. C's patients aged 18-64 years (given the relatively small sample size - see Appendix 3 Table 2).

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[1] Based on Executive Council quarterly returns for 1.10.70 and 1.10.73 respectively.

The 'after' follow up postal survey (see Appendix 3 Tables 3 and 8)

The age/sex distribution of these respondents was similar to that of the 357 persons who responded to the 'before' postal survey (allowing for the fact that by 1973 this group had aged). Both groups in 1973 were almost entirely made up of persons aged between 25-64 years. Forty six per cent of the follow up respondents were registered with Dr. A, 24 per cent with Dr. B and 30 per cent with Dr. C.

The 'after' follow up interview survey (see Appendix 3 Table 4)

As in the case of the follow up postal survey the respondents and the sample approached were almost entirely concentrated in the 25-64 years age group.

The new (after) postal sample (see Appendix 3 Table 5 and 8)

Men made up 45 per cent of both the sample approached and the group of respondents, compared with 47 per cent in the practice population over 18 years of age. Generally the distribution of respondents by age was similar to both the sample approached and the practice population.

The distribution of the respondents by doctor (with whom registered) was on this occasion relatively close to that of the practice population though once again there was a slight excess of patients registered with Dr. A and a slight deficit of patients registered with Dr. C.

The new (after) interview samples (see Appendix 3 Tables 6,7 and 8)

(a) Mothers with children under five years of age

Nineteen per cent of both the sample approached and of the respondents were aged under 25 years, the rest were almost all under 45 years of age. The distribution of the original sample and of the respondents by their childrens' doctors[1] corresponded closely with that for children under five years of age registered with the practice.

(b) The sample of persons aged 65 years or more

The distribution by sex and by doctor with whom registered for the respondents (and for the sample approached) were in both cases very similar to those for the practice population aged 65 years or more.

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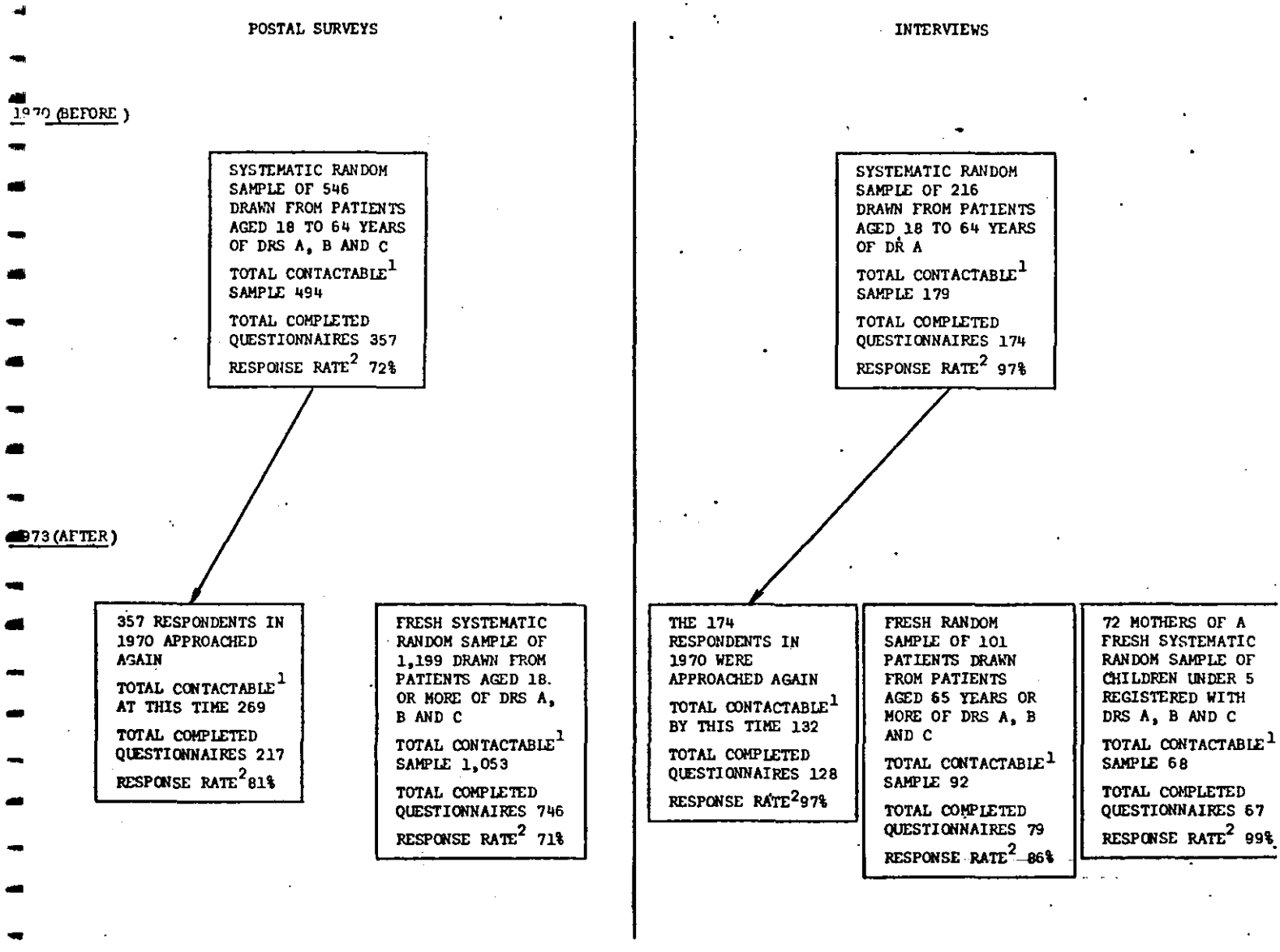
[1] Recall that a sample of children under five was selected and the mothers of these children questioned in the survey.

CHART 4

THE STRUCTURE OF THE SERIES OF PATIENT SURVEYS

WITH DETAILS OF SAMPLES AND RESPONSE RATES



[1] The total contactable sample excludes those respondents unable to reply because of death or because they had moved away from the area (i.e. those who were definitely known to be no longer for practical purposes patients of the practice under study).

[2] Response rate is calculated here as $\frac{\text{total respondents}}{\text{total contactable sample}} \times 100\%$

Factors which may influence patients' opinions

Certain factors were expected to have some influence on patients' attitudes to the experimental building and method of working, and particularly to the introduction of a practice nurse.

(a) Sex of patient

Women have a higher surgery consultation rate than men (Morrell 1970; MacDonald 1974) and are known to have different views on the doctor/patient relationship (Cartwright 1967).

(b) Age of patient

Certain age groups of patients are known to be high users of medical services e.g. children aged five years or under (and their mothers) and patients aged 65 years and over. Patients' response to change may vary within different age groups.

(c) Social class of patient[1]

There are known to be differences between the social classes in utilisation of medical care and in their attitude to the role of different medical personnel (Cartwright, 1967; Cartwright and O'Brien, 1976; King, 1962) were classified as one of :

i. Middle class - Registrar General's social classes I (non manual) to III (non manual).

ii. Working class - Registrar General's social classes III(Manual) to V (Manual).

(d) Frequency of contact[2] with the doctor

More frequent users of the general practitioner services may have established a fairly strong doctor/patient relationship which could be threatened by the introduction of nurses. These frequent users would also be more likely to have encountered the nurse at the surgery.

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[1] The Registrar General's Social Class Classification was used for all respondents except married women who were coded by their husband's occupation.

[2] The term 'contact' is defined here to include the case where a person accompanies someone else to see the doctor.

(e) 'Strength' of doctor/patient relationship

It was hypothesised that one indicator of the strength of the doctor/patient relationship would be whether or not a patient was prepared to wait until the next day to see his 'own doctor' rather than seeing another in the practice immediately.

Respondents were classified as having a 'close' or 'non close' relationship with their doctor on the following basis :

i. 'Close'- those who stated that they would prefer to wait and see their own doctor, even if this meant waiting more than a day.

ii. 'Non close' - those who stated that they would prefer to see another doctor rather than wait.

(f) Experience of the nurse

The attitude of a patient to the introduction of a nurse as part of the consultation procedure at the surgery might be affected by having received medical attention from her or another nurse. Therefore respondents were divided into two groups.

i. 'Experienced' those who had encountered the nurse working with the doctor at the surgery (not necessarily in the experimental surgery)

ii. 'Not experienced' - those who had not met the nurse at the surgery.

Results

'Attenders'[1] opinions about the experimental scheme

In these sections results quoted, unless otherwise stated, are from the 'new' (after) postal survey (undertaken six months after the opening of the experimental surgery).

Generally the answers of the follow up respondents (i.e. 'the survivors' who had already completed the questionnaire at the before stage) were broadly in agreement with those from the new sample but tended to be more favourable to the new scheme. The data from the interview surveys are referred to mainly for expansion of various points; particularly the attitudes of the two groups of potential high users, mothers of young children and the over 65s (i.e. the new interview respondents see page 54).

In analysing the results of the surveys the factors listed on pages 58 to 59 are all taken into consideration, however, comment on them is only made where they appear to be relevant to patients' opinions. The first part of this section concentrates on the 'attenders' evaluation of the design of the building, with particular reference to the special layout incorporating a number of small consulting rooms; and on accompanying organisational changes, such as the medical staff rather than the patients being the mobile agents in the system. The second part of the section examines the 'attenders' reactions to the surgery nurse and her particular way of working in the experimental scheme.

'Attenders' at the new surgery

Over half the respondents (58 per cent) claimed that during the preceding six months they had visited a doctor at the new surgery either on their own behalf or accompanying someone else. Many of them may have been accompanying children to the surgery or child health clinic,[2] for in the interview survey 94 per cent of the sub group mothers of young children

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[1] 'Attenders' were those respondents who claimed that they had visited a doctor at the new surgery either on their own behalf or accompanying someone else (during the six months it had been open).

[2] The practice has a policy of encouraging all mothers of young children (i.e. patients of the three doctors) to attend the child health clinics which are held in the new surgery premises.

compared with only 50 per cent of the over 65s were'attenders'.

As was to be expected the probability of a patient having attended the new building depended on the doctor with whom he/she was registered; 59 per cent of Dr. A's patients and 71 per cent of Dr. C's patients had attended, compared with 25 per cent of Dr. B's patients. Of those who had been to the new surgery 69 per cent attended one to four times and 31 per cent five or more times. Women generally and the younger respondents (i.e. aged 44 or less) were more likely to have attended the new surgery than the corresponding complementary groups.

The remainder of the section on patients' opinions about the new premises and the surgery nurse are based on the answers of those respondents who reported having attended the experimental premises the 'attenders'.

'Attenders'' attitudes to the design and organisation of the experimental surgery

Seventy six per cent of the 'attenders' felt the new surgery was an advantage while 17 per cent were non committal and 3 per cent thought it had disadvantages (see Table 16). Generally those respondents in the middle age groups i.e. 45-64 years were more likely to see advantages in the new surgery, while relatively more of the elderly and younger respondents held neutral views. The more contacts the respondents had had with the experimental unit the more likely they were to see it as an advantage for the patient. Those respondents with a 'close' attachment to their doctor were less likely to think the new surgery an advantage compared with those with a 'non close' attachment.

One quarter of the postal respondents (the new (after) sample) took the opportunity of commenting further on the new surgery (see Table 17). The most common favourable comments can be grouped under the following broad headings relating to:

i. the modern, bright decor,
ii. the fact that the new surgery saved both their and the doctor's time, and
iii more efficient organisation.

There were differences between the sexes in what they liked in the new building. Women tended to favour the aesthetic and decorative features in contrast to men who commented about the organisation and efficiency of the new surgery.

TABLE 16

ATTENDERS'[1] VIEWS (IN 1973) ON WHETHER THE NEW SURGERY PREMISES HAVE ADVANTAGES/DISADVANTAGES FOR THE PATIENT - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's AND SURVIVORS)

Opinion	Type of respondent				
	Postal		Interview		
	New sample	Survivors	Mothers of young children	Over 65s	Survivors
	%	%	%	%	%
Advantages	76	81	89	80	87
Doesn't matter	17	15	5	17	7
Disadvantages	3	4	5	3	5
Both	1	-	-	-	1
No answer	3	-	2	-	-
Totals (100%)	436	136	63	40	91

[1] Attenders are those who have visited the new surgery premises at least once to see a doctor or to take somebody else.

TABLE 17

REASONS GIVEN BY ATTENDERS'[1] (IN 1973) FOR FEELING THAT THE NEW SURGERY PREMISES HAVE ADVANTAGES OR DISADVANTAGES FOR THE PATIENT - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's)

Reasons	Type of respondent		
	Postal	Interview	
	New sample	Mothers of young children	Over 65s
	%	%	%
Advantages			
Saves patients' time	30	43	17
No desk - less formal	5	3	-
Modern, clean decor	42	30	18
More facilities	11	14	15
More efficient	15	6	-
Saves doctor's time	6	2	6
More efficient - instruments prepared	2	-	6
More efficient - use of a nurse	6	2	6
Friendly/relaxed atmosphere	5	19	15
Unlike a doctor's surgery	-	2	3
No stairs	6	2	4
Privacy	5	-	-
General approval	9	13	28
Other - advantage	3	11	20
Disadvantages			
Not so personal	-	3	-
Criticism of appointment system	3	2	-
Other - disadvantage	5	6	3
Other - don't mind	2	-	-
Total people who commented[2] (100%)	312	60	33

[1] Attenders : see note below Table 16 (page 62)

[2] Percentages based on the number of people who commented in any way; a number made more than one comment

The majority of those interviewed commented on the new surgery (see Table 17). The most frequently mentioned advantage among the mothers of young children was that of 'saving the patient's time' followed by 'the clean modern decor'; but a number also mentioned the friendly relaxed atmosphere. By contrast the over 65's were less likely to see 'saving patient's time' as an advantage and tended to state their approval in general terms - though once again the 'clean modern decor' and 'friendly relaxed atmosphere' attracted some thought.

'Attenders' opinions of four features of the new surgery

The respondents who had attended the new surgery were asked to indicate whether they liked or disliked each of four features of the experimental premises - its layout, the new consulting rooms, the waiting room and 'your waiting in the new consulting room for the doctor to come to see you'. All four features of the new surgery were liked by high proportions of the 'attenders' - though the waiting room was somewhat less popular than the other features (see Table 18).

The answers of those who in both the interview and postal surveys took the opportunity to comment on various features of the experimental surgery are summaried in Table 19.

Among the postal respondents the modern bright decor was the most commonly mentioned advnatage; the absence of stairs (in the main surgery building the doctors' consulting rooms were on the first floor) was the second most popular reason for liking the layout. The other specific aspect which was mentioned as an advantage by more than 10 per cent of those who commented was the fact that the new building was warm and comfortable. Among those who commented the only specific aspect of the surgery which attracted much unfavourable attention was the smallness of the waiting room; though among the very small number who commented on the 'new system' easily the most common answer was one of general dislike of the system.

In the case of those who commented in the interview survey the majority of mothers of young children felt the waiting room to be too small. The other observations made by relatively large numbers of this group were that the new system saved the patient's time and they liked the modern bright decor. The elderly interviewees comments centred on the convenient compact nature of the premises, the absence of stairs, the well equipped consulting rooms and on the waiting room being warm and comfortable (they did not generally seem to find it too small) and they appeared to be much more

favourable as a whole in their comments about the new system than the other groups of patients (see Table 19).

Privacy in the new consulting rooms

The amount of privacy in the new building had been an aspect of concern to the doctors. More than half (56 per cent) of the respondents felt that the new consulting rooms afforded more privacy. Only four per cent stated that there was less privacy in the new consulting rooms than in the old surgery premises.

Preferred place for the consultation with the doctor

The respondents were asked to choose from a list of possibilities where they would prefer to be seen by their doctor. This question was asked to gauge whether the new surgery building was acceptable compared with other possible places for consultation, for example the 'doctor's old surgery', 'your home', or 'don't mind where'. The new surgery building was preferred by 48 per cent, while only 3 per cent stated the doctor's old surgery and five per cent their own home, but 40 per cent stated that they did not mind the place where they were seen (see table 20).

Respondents aged 60-64, those with a 'close' attachment to their own doctor and to a small extent the middle class respondents were more likely to prefer the new surgery than the corresponding complementary groups. In the interview survey slightly more of the mothers of young children (43 per cent) than the over 65s (38 per cent) preferred the new surgery. Among the former the most commonly stated reason for this preference was that the new premises were clean, bright and comfortable, though a number also commented that it offered a more relaxed atmosphere and/or more privacy. The over 65s' most common reason for preferring the new surgery was that it offered more facilities and made for a more efficiently run practice (note that relatively few of the mothers of young children or the over 65s commented on their reasons for selecting the new premises or elsewhere as the place at which to be seen by their doctor).(see Table 21).

'Attenders'' views of the role of the nurse in the experimental surgery scheme

In the scheme under study the nurse played an integral part in the organisation of the new system and as the doctor's coworker (for description see page 12). Patient acceptance of her role is essential for the satisfactory operation of the scheme. However it did appear from the postal survey that 10 per cent of the 'attenders' were unaware that the doctor's coworker was

TABLE 18

ATTENDERS'[1] ATTITUDES (IN 1973) TO FOUR FEATURES OF THE NEW SURGERY - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLESI.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's,AND SURVIVORS)

Four features of new surgery	Postal						Interview								
	New sample			Survivors			Mothers of young children			Over 65s			Survivors		
	Like	Dis-like	No answer	Like	Dis-like	No answer	Like	Dis-like	No answer	Like	Dis-like	No answer	Like	Dis-like	No answer
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Layout of building	91	3	6	94	-	6	98	2	-	93	4	3	97	1	2
New consulting room	90	3	7	93	3	4	94	6	-	95	5	-	97	3	-
Waiting room	78	14	8	84	10	6	79	21	-	90	10	-	84	16	-
New system of waiting to see doctor	81	9	10	84	8	7	83	14	3	80	13	7	84	14	3

[1] Attenders : see note below Table 16 (page 62)

[2] Note percentages in the case of each feature are based on the following total numbers of attenders.
Postal : New sample 436
Survivors 136
Interview : Mothers of young children 63
Over 65s 40
Survivors 91

TABLE 19

ATTENDERS'[1] COMMENTS (IN 1973) ON THE FOUR FEATURES OF THE NEW SURGERY - RESULTS OF POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65.'s)

Reasons	Postal New sample				Interview Mothers of young children				Over 65s			
	Lay-out	Consult room	Wait room	New system	Lay-out	Consult room	Wait room	New system	Lay-out	Consult room	Wait room	New system
	%	%	%	%	%	%	%	%	%	%	%	%
Like												
Convenient and compact	6	-	1	-	8	4	4	-	42	34	24	-
No stairs	23	-	-	-	10	-	-	-	35	-	-	-
More efficiently run	6	-	-	-	-	-	-	-	11	-	-	-
Saves time	-	-	-	1	-	-	-	23	-	-	-	16
Bright, modern decor	36	31	21	-	28	26	5	-	18	10	26	-
Warm and comfortable	16	14	14	-	5	8	8	-	2	6	54	-
More efficient than one	10	2	-	-	2	-	-	-	1	-	-	-
Large, lots of space	4	-	-	-	-	-	-	-	6	-	-	-
Better for patients - unrushed	-	6	-	8	-	4	-	14	-	-	-	27
Well equipped rooms	-	8	1	-	-	7	-	-	-	53	-	-
No desk, more personal	-	2	9	-	-	2	-	-	-	11	14	-
Able to collect thoughts	-	-	-	8	-	-	-	13	-	-	-	35
General approval	7	17	-	18	29	22	10	15	11	11	8	13
Privacy	-	4	-	4	1	7	-	-	1	4	-	-
Other - like	1	3	5	14	8	16	4	6	1	3	5	4
Dislike												
Long way to reception desk	1	-	-	-	2	-	-	-	-	-	-	-
Too impersonal	1	2	1	-	-	4	-	-	-	-	-	-
Too small	-	10	51	4	2	8	64	1	-	6	22	7
Like hospital clinic	1	2	-	-	-	4	-	-	-	-	-	-
Too hot, bad ventilation	-	1	13	-	-	1	11	-	-	-	3	-
No magazines	-	-	1	-	-	-	6	-	-	-	-	-
Felt forgotten	-	-	-	8	-	-	-	1	-	-	-	7
Begin to get anxious	-	-	-	6	-	-	-	3	-	-	-	3
Other - dislike	6	3	10	32	10	4	6	17	6	3	3	10
Other - neutral	2	2	1	8	5	4	4	14	3	-	-	10
Total number of people who commented[2] (100%)	141	83	136	62	51	51	62	59	34	32	36	32

[1] see note below Table 16 (Page 62)

[2] on which percentages are based.

TABLE 20

ATTENDERS'[1] PREFERRED PLACE (IN 1973) FOR SEEING THEIR DOCTOR - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's, AND SURVIVORS)

Place preferred	Type of respondent				
	Postal		Interview		
	New sample	Survivors	Mothers of young children	Over 65s	Survivors
	%	%	%	%	%
New surgery	48	61	43	38	54
Old surgery	3	3	3	3	2
Own home	5	1	-	5	-
Don't mind	40	33	52	55	44
Depends on illness	2	1	-	-	-
No answer	3	1	2	-	-
Totals (100%)	436	136	63	40	91

[1]Attenders: see note below Table 16 (Page 62)

TABLE 21

REASONS GIVEN BY ATTENDERS[1] (IN 1973) FOR PREFERRED PLACE FOR CONSULTATION WITH DOCTOR - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEWED RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER-65's)

REASONS	TYPE OF RESPONDENT		
	POSTAL	INTERVIEW	
	NEW SAMPLE %	MOTHERS OF YOUNG CHILDREN %	OVER 65s %
New Surgery			
Clean, bright and comfortable.	32	49	24
Relaxed atmosphere.	6	25	-
More privacy.	8	18	18
More facilities.	10	4	35
More efficiently run practice.	8	13	25
No stairs to climb.	2	4	11
Not kept waiting.	2	-	6
Attention of nurse.	-	-	6
General approval.	12	9	-
Other new surgery.	6	1	4
Old Surgery			
More personal friendly atmosphere.	2	-	-
Not kept waiting so long.	1	-	-
Other - old surgery.	1	7	6
Home			
Depends on illness	4	-	-
More convenient for me.	2	-	6
Other - home.	2	-	-
Other Comments			
Doctor more important.	12	-	-
Other - don't mind.	4	-	-
Total number of people[2] who commented at all (100%)	251	29	17

[1] see note below Table 16 (Page 62)

[2] on which percentages are based.

a nurse, whereas only one interviewee who claimed to be an 'attender' was unaware of the practice nurse.

'Attenders' views on whether there had been any change in the medical care system from the introduction of a nurse

Of the postal respondents who had attended the new surgery 39 per cent[1] thought the introduction of a nurse had improved the care they received, 44 per cent that it had remained unchanged and only one per cent that it had deteriorated. The remainder were uncertain or did not answer this question (see Table 22). Younger respondents were more likely than older ones to feel it had improved.

In the interview survey mothers of young children (51 per cent) were more inclined than the over 65s (26 per cent) to view the introduction of the nurse as resulting in better patient care.

Why did respondents think that the introduction of the nurse had improved the care they received? A number of postal and interview respondents took the opportunity offered of giving their reasons for saying that such a change had taken place following the introduction of a nurse (see Table 23).

Among the postal respondents the reasons given were fairly evenly distributed over a number of categories - in so far as there was a common element to these comments it was that in a sense the doctor's time was being put to more effective use as a result of the new system of working. Among those interviewed, both mothers of young children and the over 65s, the most common specific reason stated for feeling that the introduction of the nurse had improved the care provided was the role of the nurse in relaxing and reassuring the patient (a few also mentioned the advantage of being able to talk through symptoms before seeing the doctor) - otherwise as with the postal respondents the comments tended to centre around the idea that the time was redistributed in an advantageous way.

Opinions on seeing the nurse before the doctor

In the postal survey seeing the nurse before the doctor was viewed favourably by 23 per cent of 'attenders', while 59 per cent did not mind

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[1] Compare this result with the findings of Dyche and Bevan (1976) where only nine per cent of a sample of patients thought the care had improved and 78 per cent that it was unchanged as a result of their doctors moving into a health centre.

TABLE 22

ATTENDERS[1] ATTITUDE TO THE INFLUENCE OF THE INTRODUCTION OF A NURSE ON THE MEDICAL CARE AT THEIR DOCTOR'S SURGERY - RESULTS OF POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEWED RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's, AND SURVIVORS) - 1973 SURVEY

INFLUENCE OF NURSE ON MEDICAL CARE	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE	SURVIVORS	MOTHERS OF YOUNG CHILDREN	OVER 65s	SURVIVORS
	%	%	%	%	%
Unchanged	44	53	34	68	36
Better care	39	35	51	26	56
Worse care	1	-	2	-	-
Don't know	14	9	13	6	9
No answer	2	3	-	-	-
Totals[2] (100%)	421	132	53	35	90

[1]Attenders. See note below Table 16 (page 62)

[2]Among attenders in the various samples the following numbers stated that they had not seen a nurse at their doctors' surgery:-

new postal 15
postal survivors 4
mothers of young children 10
over 65's 5
interview survivors 1

TABLE 23

ATTENDERS[1] REASONS FOR STATING THAT THE NURSE HAD INFLUENCED THE MEDICAL CARE THEY RECEIVED AT THEIR DOCTOR'S SURGERY - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's) - 1973 SURVEY

REASONS FOR SAYING THE NURSE HAS INFLUENCED THE MEDICAL CARE	TYPE OF RESPONDENT		
	POSTAL	INTERVIEW	
	NEW SAMPLE	MOTHERS OF YOUNG CHILDREN	OVER 65s
For Better Care	%	%	%
Saves doctor's time	13	17	9
Saves patient's time	13	20	-
Able to do routine work (admin.)	8	10	18
Able to do minor medical treatment	5	17	-
Generally more efficiently run practice	9	-	-
Prepares patients to see the doctor	9	-	-
Relaxes and reassures patients	7	27	38
More attention and time from medical team	5	3	-
More time with doctor	5	17	-
Doctor able to spend more time diagnosing	13	3	38
Able to talk through your symptoms	5	10	9
Helps the elderly	-	-	-
Helps children	-	-	-
Chaperone for women	1	7	-
Doctor able to delegate some work	4	3	-
Other - better care	1	7	9
For Worse Care			
Waste of time - repeating symptoms	-	-	-
Embarrassing to tell nurse	-	-	-
Too impersonal like hospital clinic		3	-
Other - worse care	1	-	-
Other Comments			
Doctor's service was already good	14	-	9
Other - unchanged	12	-	-
Total number of people[2] who commented at all (100%)	215	28	11

[1] see note below Table 16 (Page 62)

[2] on which percentages are based.

and seven per cent disliked it (see Table 24). The older patients were more likely than younger patients to hold a favourable view. In the interview survey the over 65s (35 per cent) were more likely than the mothers of young children (27 per cent) to state that they found the nurse as a first point of contact helpful. A small minority disliked the nurse being their first point of contact and gave as their reasons that it was embarassing or a waste of their and/or the doctor's time.

'Attenders' attitudes on discussing their symptoms with the nurse

For the efficient working of the experimental surgery unit the nurse needs to take a brief history from the patient to make necessary 'preparations' for the doctor. In answer to an open question in the postal questionnaire 17 per cent of'attenders' were favourably disposed to telling her about their symptoms, 42 per cent did not mind and 19 per cent definitely disliked her. The remainder were uncertain often stating that this depended on the nature of the problem or that they would prefer to wait for the doctor (see table 25).

In the interviews, over 65s were more favourably disposed to discussing their symptoms with a nurse than the mothers of young children, but no more than four per cent of either group actually disliked it (see Table 25). Hardly any of the over 65s expressed concern or doubt about discussing symptoms with the nurse. However mothers of young children were as a group much more likely to express reservations as to what they would discuss with a nurse.

'Attenders'' recollection of what the nurse had done for them on their last visit (interview only)

The interviewees were asked whether the nurse had requested and/or carried out any range of activities for them at their last visit to the surgery. Although the numbers were small there were often marked differences between mothers of young children and the over 65s (see Table 26).

'Attenders'' estimates of the time they had spent with the doctor/nurse team (interview only)

'Attenders' over 65 reported that during their last visit to the surgery their consultation time had lasted about three minutes with the nurse and six minutes with the doctor. The estimated times given by mothers of young children were 3.2 minutes with the nurse and 5.1 minutes with the doctor. The average reported consulting times with the doctor and nurse were close (especially for the nurse) to those noted in the timing(chronostamp) study (see page 22). When asked whether they thought that the time they spent

TABLE 24

ATTENDERS[1] VIEWS ON SEEING THE NURSE BEFORE THE DOCTOR - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's AND SURVIVORS) - 1973 SURVEY

OPINION	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Favourable	23	28	27	35	24
Do not mind	59	62	38	48	62
Unfavourable	7	10	16	5	7
Other	11	-	2	-	4
No answer	-	-	17	13	2
Total on which percentage is based	436	136	63	40	91

[1]Attenders: see note below Table 16 (page 62)

TABLE 25

ATTENDERS[1] ATTITUDES (IN 1973) TO DISCUSSING THEIR SYMPTOMS WITH A NURSE - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEWED RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's)

REACTION TO DISCUSSING SYMPTOMS WITH A NURSE	TYPE OF RESPONDENT		
	POSTAL	INTERVIEW	
	NEW SAMPLE	MOTHERS OF YOUNG CHILDREN	OVER 65's
	%	%	%
Unqualified favourable reaction	17	24	29
Qualified Answers Respondent had not found the current symptoms embarrassing, but would not discuss any personal problems	9	22	-
Respondent would only discuss children's problems with a nurse	1	6	-
Did not mind	42	29	63
Prefer to wait for doctor	12	16	6
Did mind	19	4	3
Total on which percentage based	329[2]	51[3]	32[4]

[1] Attenders see note below Table 16 (page 62)

[2] 72 new postal 'attenders' did not answer the question and 35 attenders claimed they had not seen a surgery nurse.

[3] 11 ('attender') mothers of young children claimed that they did not discuss their symptoms with a nurse and 1 failed to answer the question .

[4] 5 ('attender') over 65 claimed that they did not discuss their symptoms with a nurse and 3 others failed to answer the question.

TABLE 26

ATTENDERS[1] REPORTS (IN 1973) OF WHETHER A SURGERY NURSE HAD CARRIED OUT VARIOUS PROCEDURES FOR THEM[2] - RESULTS FROM INTERVIEWED RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65's)

PROCEDURE	TYPE OF RESPONDENT	
	MOTHERS OF YOUNG CHILDREN	OVER 65's
	%	%
Took patient's medical history	2	13
Asked patients to undress	24	13
Took patient's temperature	32	15
Took patient's blood pressure	19	23
Examined patient	11	5
Gave patient advice	-	3
Total on which percentages are based	63	40

[1]Attenders: see note below Table 16 (page 62)

[2]Some respondents reported more than one procedure.

with the doctor and nurse had been long enough the following percentages stated that it had :

	Over 65s	Mothers of young children
	%	%
Long enough with the nurse	88	81
Long enough with the doctor	83	75

Comments

The great majority of 'attenders' in both postal and interview surveys liked the new surgery and the architectural and organisational features associated with it. Indeed the more frequently 'attenders' had visited the experimental surgery the more likely they were to have expressed favourable opinions about it.

Whilst there was very little opposition to the role which the nurse took in the experimental surgery premises the 'attenders' were much less likely to express definite approval about this than they were for any of the aspects of the building. Many more felt that the introduction of the nurse had led to an improvement in the standard of care received at their doctor's surgery (see page 70) than expressed themselves as being in favour of either of the particular aspects of her role discussed viz patient seeing the nurse before the doctor and discussing symptoms with the nurse. The most common reason stated for finding that care had improved was that the nurse, for one reason or another, gave the patient more 'effective' time with the doctor. Moreover most of those interviewed felt that the time they spent with the doctor/nurse team was sufficient (and on average respondents recollections of time spent with the nurse and the doctor at their last surgery attendance were close to the average consulting times obtained from the timing study) (see page 22). It seems that many 'attenders' felt that the introduction of the nurse in the context of the experimental surgery scheme was beneficial even if they were not so sure that they liked some aspects of her role.

Views of all the respondents about the role of nurses in general practice

At the time when this study began the idea of a nurse working in some way with general practitioners was not new for this practice and many others (Hawthorn, 1971). Many patients would have encountered a nurse working in the general practice setting, for example as practice nurse, health visitor, district nurse or midwife.

The findings of the 'before' survey (that is undertaken two years before the opening of the experimental surgery premises) are first discussed. Next, in the case of those 'survivors' who responded in both the 'before' and 'after' surveys, the extent to which they have retained or changed their views is considered. Finally views of the 'new' respondents (that is those questioned the first time six months after the opening of the experimental surgery premises) are examined and compared with those obtained in the before surveys for further information as to how the practice population's views on the role of the nurse had changed during the period of the study.

As in the discussion of attenders' opinions about the experimental surgery (see page 60.) the factors listed on pages 58 to 59 are all taken into consideration; however comment on them is usually only made when where they appear to be related to patients' opinions.

Results from the 'before' surveys

In the 'before' survey 35 per cent of postal respondents and 30 per cent of the interview respondents reported that they had attended a surgery or clinic where a nurse had assisted their own doctor. At that time 56 per cent of the postal respondents thought the nurse was an advantage to the patient and nine per cent that she was a disadvantage, and five per cent claimed it did not matter. Those with 'experience' of the nurse working in the surgery and to a lesser extent those who were working class were more likely to state that the nurse was an advantage than the respective complementary groups.

In the interview survey the respondents were asked their reasons for considering a nurse working with a doctor in a surgery or clinic to be an advantage or disadvantage (see Table 27). Seventy four per cent thought she was an advantage for various reasons, most saw her assisting the doctor, saving his time, and enabling him to make more efficient use of his professional skills by delegating minor procedures to the nurse; while a small number of respondents mentioned the advantage of having a woman around to give advice and help (Table 27).

13 per cent of the interviewees thought the nurse would be a disadvantage, but none of this group had 'experienced' her at the surgery. Those who saw the nurse as a disadvantage were largely concerned with the possibility of a breakdown of the doctor/patient relationship, or saw the nurse as an inhibiting factor in a consultation concerning a patient's personal problems.

TABLE 27

REASONS STATED IN 1970 FOR THINKING A NURSE ASSISTING A DOCTOR AT A SURGERY OR CLINIC WAS AN ADVANTAGE OR DISADVANTAGE FOR THE PATIENT - RESULTS FROM THE 'BEFORE' INTERVIEWED RESPONDENTS.

	Patients' attitudes	Male	Female
		%	%
ADVANTAGE	Save Doctor's time	44	49
ADVANTAGE	Off load some of Doctor's work	22	20
ADVANTAGE	Woman around to give advice and help	6	7
	Neither advantage or disadvantage	15	12
DISADVANTAGE	Personal problems, would not wish the nurse to be there	5	4
DISADVANTAGE	Not qualified to give more than minor help	6	7
DISADVANTAGE	Other disadvantage	2	1
	Total number of respondents[1] (100%)	82	82

[1] 10 respondents failed to answer the question.

All respondents (postal and interview) were asked to indicate on a three point scale (good idea, doesn't matter, bad idea) how they felt about the nurse carrying out each of the following four activities.

i. The nurse giving injections
ii. The nurse treating patients with minor cuts and burns
iii. The nurse seeing patients on arrival and deciding if an examination was necessary[1]
iv. A nurse visiting patients in their homes on the doctor's behalf[2]

The first two activities were thought to be within the traditional role of the nurse and received almost universal approval from the respondents. The third and fourth activities were seen as an extension of the surgery nurse's traditional role and provide some indications of the boundaries of her role. The third activity received approval from 55 per cent of the postal respondents while 37 per cent considered it a bad idea. Forty four per cent of the postal respondents thought the fourth activity a good idea and 39 per cent a bad idea (see Table 28).

Respondents with 'experience' of the nurse were more likely to approve of the nurse carrying out the first three activities, however this factor did not influence the distribution of answers about home visits, possibly due to the fact that practice nurses do not undertake visits on behalf of the doctors in the study practice. Working class respondents were more likely than middle class respondents to be in favour of the nurse undertaking all these procedures.

A comparison of the answers of the respondents ('the survivors') who completed questionnaires in both the 'before' and 'after' postal surveys

Two hundred and seventeen respondents answered both the postal questionnaires and gave their views about aspects of the role of the nurse each time. By the time of the 'after' survey there had been a swing of eight per cent (from 55 per cent to 63 per cent) in the number of 'survivors' who felt that the nurse was an advantage (see Table 29). Of the 87 respondents in the 'before' survey who took a neutral (doesn't matter) view of the nurse,

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[1] This procedure was included because it was an important aspect of the organisation of the doctor/nurse team in the experimental scheme.

[2] This procedure was included because of the reported successful implementation of such schemes in general practice, see Weston Smith and O'Donovan (1970). The nurse had not been employed in this way in the practice participating in this study.

TABLE 28

VIEWS OF POSTAL RESPONDENTS IN 1970 ABOUT A NURSE UNDERTAKING FOUR ACTIVITIES LISTED IN THE QUESTIONNAIRE (ACCORDING TO WHETHER OR NOT THEY HAD EXPERIENCE OF A NURSE WORKING IN THEIR DOCTORS' SURGERY)

OPINION	Experienced %	Not Experienced %	Did not know %
The nurse giving injections			
Good idea	87	76	74
Doesn't matter	13	18	19
Bad idea	-	4	3
No answer	1	3	3
Totals (100%)	126	200	31
The nurse treating patients with minor cuts and burns			
Good idea	93	88	90
Doesn't matter	6	10	3
Bad idea	1	2	3
No answer	1	1	3
Totals (100%)	126	200	31
The nurse seeing patients on arrival and deciding if examination necessary			
Good idea	55	34	45
Doesn't matter	6	11	13
Bad idea	37	54	35
No answer	3	2	6
Totals (100%)	126	200	31
A nurse visiting patients in their homes			
Good idea	44	43	42
Doesn't matter	15	13	14
Bad idea	39	42	40
No answer	2	3	3
Totals (100%)	126	200	31

TABLE 29

A CROSS-TABULATION OF THE VIEWS OF THE 'SURVIVORS' IN THE 'BEFORE' AND 'AFTER' SURVEYS ABOUT WHETHER A NURSE ASSISTING A DOCTOR AT THE SURGERY/CLINIC IS AN ADVANTAGE OR DISADVANTAGE TO THE PATIENT

	'AFTER' SURVEY				
'BEFORE' SURVEY	Advantage	Does not matter	Disadvantage	No Answer	Total
Advantage	92	23	2	2	119(55%)
Does not matter	39	44	2	2	87(41%)
Disadvantage	4	1	1	1	7(3%)
No answer	2	2	-	-	4(2%)
Total	137(63%)	70(32%)	5(2%)	5(2%)	217(100%)

The body of the table gives actual numbers of respondents falling into particular catagories (for example, 146 respondents in both the 'before' and 'after' situation thought the nurse giving injections to be a good idea.) Percentages given in the margin column and row give the distribution of respondents by their opinions in the 'before' and 'after' situations respectively.

39 of them in the after survey then saw her as an advantage; and of seven people who initially saw her as a disadvantage, by the 'after' situation four saw her in a more favourable light. There were however some movements of opinion in the opposite direction which partly cancelled out these gains.

The increase in the overall proportion of 'survivors' who saw the nurse as an advantage would appear to be related to the increase in the number who had 'experienced' her working in the surgery; 63 per cent of them had 'experience' of the nurse by the time of the 'after' survey compared with 35 per cent in the 'before' survey (see Table 30).

The 'survivors' were again asked how they felt about the nurse carrying out each of four activities (see page 80). Over 90 per cent of respondents in each survey thought it a 'good idea' for her to treat minor cuts and burns (see Table 31). The proportion who felt it a good idea for her to give injections fell slightly from 82 per cent in the 'before' situation to 77 per cent in the 'after' situation, but this change was mostly to a neutral position. However in the case of both these 'traditional' features of her role there was little opposition to their being undertaken by the nurse. While in the 'before' survey the relatively small group with 'experience' of the nurse took a more favourable view than those who had not, in the 'after' survey the 'experienced' and 'not experienced' groups held similar views about these two activities.

At the time of the 'after' survey the nurse seeing patients on arrival, and assessing whether examination was necessary, was a characteristic feature of the experimental surgery scheme. Forty five per cent of respondents thought this was a good idea in the 'after' survey (compared with 40 per cent in the 'before' survey). The proportion thinking it a bad idea was 48 per cent in both surveys. These relatively small overall changes mask the fact that per cent of the 'survivors' had changed their mind in one direction or the other between the two surveys. Those respondents with 'experience' of the nurse were much more likely to be in favour of the nurse undertaking this activity than those without experience (see Table 32).

The suggestion of the nurse visiting patients in their homes on the doctor's behalf received less support in the 'after' survey than in the 'before' survey. Only 35 per cent of the 'survivors' thought it a good idea in the 'after' survey compared with 41 per cent in the 'before'. Fifty two per cent thought it a bad idea in the 'after' survey compared with 41 per cent in the 'before' survey, while at the time of the survey relatively few took a

TABLE 30

A COMPARISON OF THE VIEWS OF THE POSTAL 'SURVIVORS' IN BOTH THE BEFORE AND AFTER SURVEYS (ACCORDING TO WHETHER OR NOT THEY HAD HAD EXPERIENCE OF A NURSE ASSISTING IN THEIR DOCTORS' SURGERY) ABOUT WHETHER THEY CONSIDERED IT AN ADVANTAGE OR DISADVANTAGE TO THE PATIENT IF THE DOCTOR IS ASSISTED BY A NURSE

OPINION	BEFORE [1]		AFTER [2]		
	Experienced %	Not Experienced %	Experienced %	Not Experienced %	Respondents who claimed their doctor did not have a surgery nurse %
Advantage	69	48	72	51	49
Doesn't matter	29	46	26	39	44
Disadvantage	1	5	1	5	5
Both	-	1	-	-	-
Answer given but no box ticked	-	-	1	5	2
Totals (100%)	75	122	132	41	41

[1] 18 respondents stated they did not know whether they had encountered a nurse at the surgery and 2 failed to answer the question.

[2] 3 respondents stated they did not know whether they had encountered a nurse at the surgery.

TABLE 31

CROSS-TABULATION OF THE VIEWS OF THE POSTAL 'SURVIVORS'[1] IN THE 'BEFORE' AND 'AFTER' SURVEY ABOUT THE NURSE UNDERTAKING FOUR ACTIVITIES LISTED IN THE QUESTIONNAIRE

nurse giving injections

Before survey	After survey: no answer %	good idea %	does not matter %	bad idea %	other %	total %
no answer	-	3	-	-	-	3(1%)
good idea	1	145	24	6	-	177(82%)
does not matter	-	16	10	2	1	29(13%)
bad idea	-	3	4	1	-	8(4%)
Total	1	168(77%)	38(18%)	9(4%)	1	217(100%)

The nurse treating minor cuts and burns

Before survey	After survey: no answer %	good idea %	does not matter %	bad idea %	other %	total %
no answer	-	1	-	-	-	1
good idea	2	181	10	3	-	196(90%)
does not matter	-	13	2	-	-	15 (7%)
bad idea	-	3	2	-	-	5(2%)
Total	2(1%)	198(91%)	14(6%)	3(1%)	-	217(100%)

TABLE 31 (continued)

The nurse seeing patients on arrival and deciding if they needed an examination

	After Survey					
	no answer %	good idea %	does not matter %	bad idea %	other %	total %
no answer	-	4	-	1	-	5 (2%)
good idea	2	51	5	28	-	86 (40%)
does not matter	-	11	5	6	-	22 (10%)
bad idea	2	32	3	67	-	104 (48%)
total	4(2%)	98(45%)	13(6%)	102(47%)	-	217(100%)

The nurse visiting patients in their homes on the doctor's behalf

	After Survey					
	no answer %	good idea %	does not matter %	bad idea %	other %	total %
no answer	-	5	-	2	-	7 (3%)
good idea	3	39	4	41	1	88 (41%)
does not matter	-	10	6	14	4	34 (16%)
bad idea	2	22	7	55	2	88 (41%)
total	5 (2%)	76(35%)	17(8%)	112(52%)	7(3%)	217(100%)

[1]The body ofeach table gives actual numbers of respondents falling into particular categories (for example, 146 respondents in both the 'before' and 'after' situation thought the nurse giving injections to be a good idea.) Percentages given in the margin columns and rows give the distribution of respondents by their opinions in the 'before' and 'after' situations respectively).

TABLE 32

A COMPARISON OF THE VIEWS OF THE POSTAL SURVIVORS IN BOTH THE BEFORE AND AFTER SITUATIONS (ACCORDING TO WHETHER OR NOT THEY HAD HAD EXPERIENCE OF A NURSE WORKING IN THEIR DOCTORS' SURGERY) ABOUT A NURSE UNDERTAKING FOUR ACTIVITIES LISTED IN THE QUESTIONNAIRE

OPINION	BEFORE		AFTER		
	Experienced	Not Experienced	Experienced	Not Experienced	Respondents who claimed doctor did not have a surgery nurse
The nurse giving injections	%	%	%	%	%
Good idea	92	75	79	80	71
Doesn't matter	8	17	14	20	22
Bad idea	-	6	5	-	5
Other	-	-	1	-	-
No answer	-	2	1	-	-
Totals (100%)	75	124	132	41	41
The nurse treating patients with minor cuts and burns					
Good idea	95	87	90	93	93
Doesn't matter	4	10	6	7	5
Bad idea	1	2	2	-	2
No answer	-	1	2	-	-
Totals (100%)	75	124	132	41	41
The nurse seeing patients on arrival and deciding if exam. necessary					
Good idea	53	32	52	39	32
Doesn't matter	5	12	4	12	5
Bad idea	37	55	42	46	61
No answer	4	1	2	2	2
Totals (100%)	75	124	132	41	41
A nurse visiting patients in their homes					
Good idea	47	39	35	34	37
Doesn't matter	13	15	6	10	10
Bad idea	37	43	51	56	49
Other	-	-	4	-	-
No answer	3	3	4	-	2
Totals (100%)	75	124	132	41	41

1 In the 'before' survey 18 stated they did not know whether they had seen a nurse.
2 In the 'after' survey 3 did not state whether they had seen a nurse.

neutral position. Nearly half the respondents changed their minds on this question between the surveys, and their answers do not appear to have been influenced by whether or not they had 'experience' of the nurse.

Results of the new 'after' survey

It will be recalled that a completely new sample of patients were also questioned in the 'after' situation (see page 54). Unless otherwise indicated all the results are from the new 'after' postal survey.

On this occasion 63 per cent of the respondents saw the nurse as an advantage to the patient (compared with 55 per cent in the 'before' survey).

Certain sub groups of respondents assessed the nurse as being advantageous to the patient as follows:

72 per cent of those with 'experience'[1] of the nurse compared with 55 per cent of those without this 'experience'

65 per cent of the working class respondents compared with 61 per cent of the middle class respondents

68 per cent of those who had attended the new surgery compared with 55 per cent of those who had not

64 per cent of those with 'non close' attachment to their doctor compared with 54 per cent of those with 'close' attachment.

Also, the elderly postal respondents aged 65 years or more were less likely than the other age groups to see the nurse as an advantage to the patient. In the interview survey a higher proportion of the mothers of young children (76 per cent) saw the nurse as an advantage compared with the over 65s (67 per cent).

In the 'after' surveys respondents were questioned specifically on the advantages or disadvantages of a nurse from the doctor's point of view. This was because it was found in the 'before' surveys that many respondents appeared to see her advantages for the patient as arising indirectly through her assistance to the doctor.

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[1] At least 56 per cent of the postal respondents had 'experience' of the nurse in the surgery by this time and in the case of the interviewees so had 81 per cent of the mothers of young children and 49 per cent of the over 65s.

Overall 76 per cent of the new 'after' postal respondents saw the nurse as an advantage to the doctor. More particularly the following percentages of sub groups of interest took this view :

84 per cent of those with 'experience' of the nurse in the surgery compared with 61 per cent of those without this 'experience'

79 per cent of those with a 'non close' attachment to their doctor compared with 66 per cent of those with a'close' attachment (see page 59)

85 per cent of those who had attended the new surgery compared with 73 per cent of those who had not

81 per cent of the middle class respondents compared with 75 per cent of the working class respondents.

In the postal survey those over 65 years of age were again the group least likely to hold a favourable view of her in this respect.

In the interview survey 94 per cent of mothers of young children and 82 per cent of the over 65s saw the nurse as an advantage to the doctor. She was thus more often considered to be an advantage to the doctor than to the patient. The most common reason for regarding the nurse as an advantage was that she saved the doctor's time in one way or another; and a number of people explicitly saw this as enabling the doctor to spend more time using his special skills (e.g. for diagnostic purposes) or as giving the patient more time generally with the doctor. Another kind of advantage mentioned (see table 33) relatively frequently by respondents was that she would save the patient's time. Mentioned less frequently, but still by about 13 per cent of the postal respondents was the arguably more complex idea (at least to express in writing) of the nurse being an advantage because she provided emotional support to the patient (for example by relaxing and reassuring them). Very few mentioned as an advantage the possibility that she could give patients advice. In fact generally respondents who saw the nurse as an advantage seemed to see this in terms of her giving relatively basic nursing and administrative support to the doctor.

Among those who gave a reason for seeing the nurse as a disadvantage (see Table 33), these were much fewer than those who gave a reason for regarding her as an advantage, the great majority of the comments centred around the feeling that they came to see their doctor only and/or found the presence of the nurse unnecessary or in some way intrusive.

TABLE 33

RESPONDENTS' COMMENTS (IN 1973) ON THE ADVANTAGES/DISADVANTAGES OF A NURSE ASSISTING A DOCTOR AT THE SURGERY - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE) AND INTERVIEW RESPONDENTS (NEW SAMPLES, I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65'S)

Reasons for believing nurse to be an advantage	Type of Respondent		
	Postal	Interview	
	New Sample %	Mothers of Young Children %	Over 65's %
Leads to increased efficiency in practice	8	6	12
Nurse can undertake general administrative chores	3	12	3
Helps generally	21	15	18
Leads to better patient care	5	12	18
Doctor has more time to use special skills, e.g. diagnosis	11	3	18
Doctor able to delegate work	10	6	12
Nurse can undertake minor medical treatment	23	24	21
Nurse can prepare patients (medically)	1	45	18
Nurse can prepare instruments	2	-	6
Nurse can record patients' medical history	6	9	9
Nurse can write out forms, e.g. prescriptions	7	18	12
Saves patients' time	28	27	12
Gives patient more time with doctor	13	12	6
Saves doctor's time	44	48	39
Nurse can prepare patients (generally)	11	12	27
Nurse can prepare elderly	3	-	2
Nurse can prepare children	-	12	-
Nurse can prepare and chaperone women	1	12	12
Nurse relaxes and reassures patients generally	13	18	18
Nurse relaxes and reassures children	-	-	3
Nurse relaxes and reassures women	2	3	3
Nurse can give general advice	3	3	3

TABLE 33 (Cont'd)

Reasons for believing nurse to be an advantage	Type of Respondent		
	Postal	Interview	
	New Sample %	Mothers of Young Children %	Over 65's %
Nurse can give advice of a personal nature to women	-	3	3
Other advantages	3	-	4
Total number of respondents who gave one or more reasons for believing nurse to be an advantage (100%)	572	63	72
Reasons for believing nurse to lead to disadvantages or that her role should be subject to restrictions			
Only come to see doctor	38		
Doctor should screen patients before they see nurse	3		
Nurse should only carry out doctor's instructions	3		
Nurse must have relevant qualifications	8		
Waste of time	10		
Lack of privacy in consultation	6		
Leads to embarrassment	7		
Leads to bad doctor/patient relationship	2		
Not necessary	12		
Would not discuss personal problems with nurse	8		
Other disadvantages	7		
Depends if private matter	7		
Depends on seriousness of illness	2		
Up to patient to decide whether or not to see nurse	2		
Up to doctor to decide whether or not patient sees nurse	2		
Total number of respondents who gave one or more reasons for believing nurse to lead to disadvantages or that her role should be restricted (100%)	216		

Note that in the Interview survey only 7 mothers of young children and 3 of the over 65's indicated any disadvantages associated with a nurse or restrictions on her role. Almost all of these were concerned about the nurse intruding in some way on the doctor/patient relationship.

The pattern of answers, relating to the advantages of the nurse, in the interview survey was generally similar to thatddescribed above for the postal respondents (see Table 33). The mothers of young children were more likely than the over 65s to see the advantages in terms of saving patient's time and in clinical preparation of patients,while the over 65s more often mentioned her role of 'preparing' the patient in a more general sense,for xample helping to undress them, and also the possibility that she could give the doctor more time to spend on making a diagnosis. The supportive role of the nurse was as in the patient survey mentioned by relatively few of those in the interview survey. Very few of the mothers of young children or the over 65s stated reasons for seeing the nurse as a disadvantage, the handful who did, these were nearly all young mothers rather than over 65s, saw the disadvantage in terms of the nurse intruding on the doctor/patient relationship.

As in the 'before' surveys, respondents were questioned about their attitudes to the nurse undertaking a series of activities. The four activities which had been used in the 'before' surveys (see page 80) were again included together with three additional activities. The seven activities fell into three broad areas as follows :

1. Decision making - in which the nurse acts as an intermediary between the patient and the doctor.

   a. 'The nurse seeing patients on arrival and deciding whether an examination is necessary'.

   b. 'The nurse visiting patients in their home on the doctor's behalf'.

   c. 'The nurse deciding on what drugs or medicine the patient needs'.

2. Minor clinical procedures

   d. 'The nurse giving injections'.

   e. 'The nurse treating patients with minor cuts and burns'.

3. Supportive activities - the nurse offering advice and reassurance to patients

   f. 'The nurse giving advice on child rearing problems'.

   g. 'The nurse helping elderly patients to get ready to see the doctor'.

Activities (b) and (c) were the only two which were not undertaken by the surgery nurses working in the experimental surgery scheme.

Although by the time of the 'after' survey a higher proportion of all 'new' respondents (56 per cent) had now encountered the nurse (compared with 35 per cent of the respondents in the 'before' study) there was some reduction in the proportion of respondents accepting certain aspects of her role. Most approved of the nurse undertaking traditional medical activities (d) and (e), but this proportion was not as high as that found in the 'before' survey (Table 34). The nurse seeing the patient on arrival to decide whether examination was needed or not, was seen as a good idea by 42 per cent and a bad idea by 48 per cent of these respondents (in 'before' survey 40 per cent that it was a good idea and 48 per cent a bad idea); while only 34 per cent thought the nurse visiting the patient on behalf of the doctor was a good idea and 52 per cent a bad idea (in the 'before' survey 41 per cent thought this was a good idea and 41 per cent a bad idea.

As in the 'before' survey those respondents with 'experience' of the nurse were more likely to approve of her giving injections, and treating patients and being patient's first point of contact, than those who had not. However again the factor 'experience' of the nurse did not influence respondent's answers on the nurse undertaking home visits on the doctor's behalf. In fact 30 per cent of women compared with 40 per cent men viewed this latter activity with approval (although women were the more likely to encounter the nurse at the surgery). Middle class respondents and patients over 65 years were less likely than the corresponding complementary groups to approve of the nurse undertaking any of the activities (a), (d) and (e). In the case of activity (b) the over 65s and middle class were slightly more in favour of the nurse undertaking home visits on the doctor's behalf than younger respondents and working class respondents respectively.

The activities (c), (f) and (g) were only included in the 'after' survey. The idea of the nurse deciding which drugs the patient needed was almost universally rejected by respondents, 88 per cent thought it a bad idea. Helping elderly patients to get ready to see the doctor (g) was seen by almost all as a good idea (94 per cent). Just over half the respondents (54 per cent) thought that the nurse giving advice on child rearing problems was a good idea, but 19 per cent thought this was a bad idea. Having 'experience' of the nurse and having a 'non close' attachment to your own doctor again appeared to be associated with a patient taking a favourable view towards the nurse undertaking this activity. Middle class respondents (59 per cent) were more likely than working class respondents (52 per cent) to think that the nurse giving advice on child rearing problems was a good idea.

From respondents answers about the activities (f) and (g) it appears that they have readily accepted the nurse in her supportive role as a caring or motherly figure and as one who undertakes minor clinical procedures; but they were more reluctant to accept the nurse in a decision making role such as being the patient's first point of contact or deciding which drugs or medicine the patient received.

In the 'after' interview surveys the over 65s group of respondents tended to be more likely than the postal respondents to be in favour of the nurse undertaking the seven activities - particularly in the case of her visiting patients at home (see Table 34).

The mothers of young children mostly accepted her giving injections, treating minor cuts and helping the elderly, but were more divided about the other activities mentioned. Sixty six per cent thought it a bad idea for the nurse to see patients on arrival and decide whether examination was necessary; 58 per cent thought it a bad idea for the nurse to undertake home visits on the doctor's behalf, while 40 per cent that it was a bad idea for her to give advice on child rearing. This group of respondents appeared particularly concerned about the nurse having a decision making role.

Respondents' attitudes to a series of propositions about the nurse

A series of six propositions about the nurse were given to the respondents and they were asked to indicate on a five point scale whether they strongly agreed, agreed, were uncertain, disagreed or strongly disagreed with the statements. The statements were :

1. 'The nurse saves the doctor's time'.
2. 'Many illnesses and complaints only need to be seen by the nurse'.
3. 'The nurse could advise patients whether they need to see the doctor'.
4. 'The nurse upsets the patients relationship with the doctor'.
5. 'The nurse should only carry out the doctor's instructions'.
6. 'The nurse should only help women patients'.

The first statement was included because a number of respondents in the 'before' study had seen this as the nurse's main advantage. Most respondents in the postal and interview surveys agreed or agreed strongly with this statement (see Table 35).

Statements two and three examined respondents attitudes towards the expanded role of the nurse. Respondents were evenly divided for and against both

TABLE 34

RESPONDENTS' ATTITUDES (IN 1973) TO THE NURSE UNDERTAKING CERTAIN PROCEDURES - RESULTS OF POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65'S, AND SURVIVORS)

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
The nurse seeing patients on arrival and deciding if examination necessary	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Good idea	42	45	31	46	43
Does not matter	7	6	1	6	-
Bad idea	48	47	66	48	56
No answer	3	2	1		1
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
A nurse visiting patients in their homes on the doctor's behalf	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Good idea	34	35	37	62	50
Does not matter	8	8	3	4	3
Bad idea	52	51	58	34	45
No answer	6	6	1	-	2
Total number on which percentages based	746	217	67	79	128

TABLE 34

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE	SURVIVORS	MOTHERS OF YOUNG CHILDREN	OVER 65's	SURVIVORS
The nurse deciding on what drugs or medicine the patient needs	%	%	%	%	%
Good idea	5	4	3	9	7
Does not matter	3	3	-	4	1
Bad idea	88	90	97	87	92
No answer	4	3	-	-	-
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE	SURVIVORS	MOTHERS OF YOUNG CHILDREN	OVER 65's	SURVIVORS
The nurse giving injections	%	%	%	%	%
Good idea	72	77	97	86	96
Does not matter	17	18	-	6	1
Bad idea	7	4	3	8	2
No answer	4	1	-	-	-
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE	SURVIVORS	MOTHERS OF YOUNG CHILDREN	OVER 65's	SURVIVORS
The nurse treating patients with minor cuts and burns	%	%	%	%	%
Good idea	85	91	100	95	99
Does not matter	10	6	-	1	-
Bad idea	2	1	-	4	1
No answer	2	1	-	-	-
Total number on which percentages based	746	217	67	79	128

TABLE 34

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
The nurse giving advice on child rearing problems	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Good idea	54	59	54	54	54
Does not matter	19	17	3	19	7
Bad idea	19	18	40	27	37
No answer	8	5	3	-	3
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENTS				
	POSTAL		INTERVIEW		
The nurse helping elderly patients to get ready to see the doctor	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Good idea	94	97	100	99	99
Does not matter	3	-	-	-	-
Bad idea	1	1	-	1	1
No answer	2	1	-	-	-
Total number on which percentages based	746	217	67	79	128

TABLE 35

RESPONDENTS VIEWS (IN 1973) ON SIX PROPOSITIONS ABOUT THE NURSE - RESULTS FOR POSTAL RESPONDENTS (NEW SAMPLE AND SURVIVORS) AND INTERVIEW RESPONDENTS (NEW SAMPLES I.E. MOTHERS OF YOUNG CHILDREN AND OVER 65'S, AND SURVIVORS).

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
The nurse saves the doctor's time					
Strongly agree	44	43	37	23	49
Agree	45	48	57	66	49
Uncertain	7	7	3	5	1
Disagree	1	1	3	4	1
Strongly disagree	1	-	-	-	-
No answer	2	-	-	3	-
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
The nurse upsets the patients' relationship with the doctor					
Strongly agree	5	2	-	1	1
Agree	8	8	12	6	13
Uncertain	26	32	10	20	7
Disagree	44	48	72	67	68
Strongly disagree	14	8	6	3	10
No answer	3	1	-	3	-
Total number on which percentages based	746	217	67	79	128

TABLE 35 (Continued)

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
Many illnesses and complaints only need to be seen by the nurse					
Strongly agree	12	8	-	1	2
Agree	31	35	42	51	44
Uncertain	13	15	7	18	8
Disagree	25	33	49	28	41
Strongly disagree	11	9	1	-	4
No answer	3	1	-	2	1
Total on which percentages are based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
A nurse could advise patients whether they needed to see the doctor					
Strongly agree	7	5	1	-	1
Agree	33	31	31	37	37
Uncertain	14	18	6	13	7
Disagree	28	33	54	46	43
Strongly disagree	16	13	7	3	11
No answer	2	1	-	3	-
Total on which percentages based	746	217	67	79	128

TABLE 35 (continued)

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
The nurse should only carry out doctor's instructions					
Strongly agree	48	49	33	58	41
Agree	37	39	54	35	48
Uncertain	6	5	3	-	4
Disagree	6	6	10	3	7
Strongly disagree	1	1	-	1	-
No answer	2	-	-	3	-
Total number on which percentages based	746	217	67	79	128

	TYPE OF RESPONDENT				
	POSTAL		INTERVIEW		
	NEW SAMPLE %	SURVIVORS %	MOTHERS OF YOUNG CHILDREN %	OVER 65's %	SURVIVORS %
A nurse should only help women patients					
Strongly agree	3	2	1	3	-
Agree	8	7	4	8	7
Uncertain	11	12	1	6	3
Disagree	53	62	63	68	61
Strongly disagree	23	16	30	13	29
No answer	3	1	-	3	-
Total number on which percentages are based	746	217	67	79	128

these propositions; but men and those with a 'non close' attavhment to their doctor (see page 59) were more likely to be in favour of them than the corresponding complementary groups. Respondents who had 'experienced' the nurse working in the surgery were more likely to agree with statement two but less likely to agree with statement three than those without this experience. Social class and age did not appear to affect respondents answers about the second proposition, however in the case of the third proposition a higher proportion of working class respondents than those from the middle classes agreed with it, and the older the respondents were the more likely it was that they would agree with this proposition.

In the interview survey the over 65s were more likely to agree with both statements two and three than the mothers of young children (see Table 35).

Statements four, five and six were included partly to see whether respondents were discriminating between favourable and unfavourable statements about the nurse and partly to find out :

a. whether respondents thought the nurse would adversely affect the doctor/patient relationship, and
b. whether there was support for the relatively restricted role suggested for her by statements five and six.

Respondents mostly did not agree with statements four and six whereas 85 per cent did agree that the nurse should only carry out the doctor's instructions. Men, those who had encountered the nurse working in the surgery, members of the middle class and respondents with a 'non close' attachment to their own doctor were more likely to disagree with these three statements than the corresponding complementary groups. There was little difference between the various age groups in their opinions about these propositions. In the interview survey mothers of young children were consistently more likely than the over 65s to disagree with these latter three statements particularly that the nurse should only help women patients (see Table 35).

Comments

The surveys that were undertaken two years before the opening of the experimental surgery showed 35 per cent of postal respondents and 30 per cent of the interview respondents had had 'experience' of the nurse working at their past or present doctor's surgery. At that stage, this factor appeared

to influence respondents towards a greater acceptance of the nurse in her surgery role. This finding of increased acceptance of the nurse once patients had had 'experience' of the nurse had also been reported by Weston-Smith and O'Donovan (1970), and by Lees and Anderson (1971) in Canada.

The social class of respondents seemed to be the other main factor related to patients' views on the role of the nurse; working class respondents were generally more likely than middle class respondents to be favourably disposed to her undertaking surgery activities on the doctor's behalf.

Six months after the opening of the new building those respondents who had replied to the 'before' survey were recontacted, the 'survivors'. In addition new samples of postal and interview respondents were approached in the 'after' situation. The opinions of these groups were quite similar. The impression gained from the survey data was that by 1973 patients of the practice were more cautious in their views about the role of the nurse than had been the case in the 'before' survey. By the time of the 'after' surveys although a much higher proportion of respondents, than in the 'before' surveys, had'experienced' the nurse working in their doctor's surgery, patients would have been unlikely to have had many opportunities of attending the new surgery and 'experiencing' the doctor/nurse team working there. However they were more likely in 1973 when the new unit had been functioning for six months to see the nurse as an advantage to the patient and seemed to see her role as largely that of saving the doctor's time which could then be redistributed for the benefit of patients. Whilst there was general agreement that she could help the elderly to get ready to see the doctor, undertake treatment of minor cuts and burns and give injections there was then more opposition to her undertaking activities involving decision making, traditionally associated with the doctor.

In the 'after' surveys those with 'experience' of the nurse working in the surgery, members of the working class and those under 65 years of age were generally more favourably disposed to the nurse than the corresponding complementary groups, but in no case was the association as strong as that found for 'experience' of the nurse in the 'before' studies.

Given the obvious good will shown by the respondents to the experimental building, it seems quite possible that the factors tending to make them in 1973 more cautious than the respondents in 1970 about expanding the role of the nurse, were external to the practice, for example the Patients' Association in 1972 in a press release expressed certain reservations about the role of the nurse in general practice.

Staff opinions on the experimental scheme

All the members of the practice staff were interviewed about their views and opinions on the experimental surgery, including both the new building and organisational changes involved in it. The interviews were conducted by a trained interviewer and tape recorded nine months after the opening of the experimental surgery (for details of schedule see Appendix 2). The members of staff interviewed were the three doctors, the practice secretary, surgery nurses and receptionists, midwife, district nurse, health visitor.

Those who actually worked in the new surgery building expressed high praise for it, stating that they found working there more relaxing and efficient and that there was better communication between staff.

> 'It's modern, relaxing, it makes for efficiency and good communications between the people here. Also it is well equipped, and we don't appear to waste any time. I like the consulting rooms as they are all identically equipped'. (Surgery Nurse)

They all liked the modern, bright decor of the building and found the new consulting rooms pleasant and efficient to work in, because 'everything was to hand'. The major criticism mentioned by all of the staff was the small size of the waiting room and some disliked its small windows which they found 'prison like'.

Each member of the staff was questioned about the effect of the experimental scheme on their own work. The receptionists felt that it had improved their job by establishing a better patient flow and avoided queue jumping as the nurse met the patients and conducted them to the new consulting rooms. However they did feel rather isolated as the reception desk was located in the main building. This was not strictly speaking a feature of the new scheme but merely a consequence of the decision to retain the reception desk in the main building. The practice secretary who now had an office in the new building liked the closer contact she had with the patients although her work was more often interrupted both by the doctors and the patients than when she was based in the main building.

All the surgery nurses enjoyed working in the doctor/nurse team and felt that this system of working had facilitated communications with both the doctors and the patients. They found that their being the patients' first point of contact with the medical team seemed acceptable to the majority of patients. It was they thought positively welcomed by some anxious patients whom they could reassure and also by some who wished to rehearse their

presentation of symptoms and some older patients who found difficulty in undressing and preparing for an examination. The nurses mentioned that a few patients were reluctant to discuss the reasons for their surgery visit with them, particularly when it was their first visit to the new surgery premises. However their impression was that such patients on subsequent attendances at the new surgery generally appeared more ready to accept the nurse in this role. The nurses enjoyed working in the experimental scheme. They did however doubt whether it would offer enough scope to a full time S.R.N. nurse.[1]

> 'If I worked here full time it would not be enough but as I am married with children it's fine;it gives you the opportunity to keep up with medical data. However I don't think it would offer a young nurse the career opportunities she would want.' (Surgery Nurse)

The doctors working in the experimental scheme expressed the view that they worked better in the relaxed atmosphere of the new building and were able to cope with more patients and longer surgery sessions without feeling fatigued. The doctors had found it a great advantage to have the patient prepared (both physically and psychologically) by the nurse. Neither of the doctors felt that the team concept of a doctor and nurse had adversely affected their relationship with the patient. The absence of a desk appeared to reduce the barrier to comfortable interaction which had sometimes been experienced by doctors and patients, they thought, in the traditional consulting room; while the siting of the telephone in the central area outside the consulting room in the new surgery meant that the consultation was only interrupted on the rarest of occasions.

The doctor working outside the experimental scheme in the main surgery building had nevertheless some experience of working in the new unit when one of the other partners was away on holiday. He felt that the traditional type of consulting room was more homely and that the consulting rooms in the new building were too small and resembled a hospital outpatients' clinic. He preferred to see his patients first and only refer them to the nurse after this. He disliked the doctor ending the consultation by leaving the patient as he felt it should be the patient who should conclude the consultation. This doctor also commented that he had felt very tired working in the new surgery building due to the amount of walking between the new consulting

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[1] The work of the surgery nurses had been to some extent curtailed in the period of this study and since the ending of the recording periods the practice nurses have enlarged their job by undertaking other procedures such as taking blood samples from patients etc. see Page 100.

rooms (although the two other doctors had not found this a problem).

Nevertheless despite the reservations of one partner of the practice it is worth emphasizing that all the staff working in the new surgery building would not wish to return to the main surgery and its traditional pattern of work.

POSTSCRIPT

Contributed by C.B.F.

At the time of writing the new building has been in use for three years and eight months but only the first year of its life has been examined in this study.

The new method of working appears to continue to be very satisfactory from both the patients' and the doctors' point of view. Although the workload has become heavier the doctors have found it possible to cope with the work with minimal fatigue. In the year 1975, 27,700 surgery consultations took place throughout the whole practice - an increase of 2,000 consultations over the last year recorded in the study (1973-74).

Since the Unit opened an approximate total of 100,000 consultations have taken place in it. The decorations and furnishings of the building still have a new look about them having withstood this level of use well, while the design of the building continues to be entirely satisfactory.

The nurses who work in the Unit appear now to be more fully occupied than they were when the study was completed in October 1973. The surgery nurses now undertake a greater number and wider range of activities including taking blood, measuring haemoglobins and E.S.Rs and undertaking pregnancy testing of urine where applicable. They are also vaccinating and immunising patients and giving them desensitising injections when needed. The nurses also carry out dressings and treatments, some of which would previously have been done by the district nurse. They also assist the doctors with minor surgical procedures (e.g. removal of warts or verrucae, opening abscesses, etc.), which are now frequently done during surgery session when first seen - with consequent saving of time. During the whole of the study period these were referred to a minor operations clinic.

The three partners and three out of the four surgery nurses are still working in the practice which has become a training practice. The new Unit has proved to be ideal for introducing a trainee into general practice for he is able to work alongside his trainer during surgery sessions using one of the three consulting rooms while the trainer uses the other two. This enables them to talk together about patients during the session and is of particular value in the trainee's early days in the practice.

At his own request Dr. B now works in the Unit for one surgery each week, when he tends to ask especially his elderly patients who may need examination, and patients requiring cervical smear examinations, to come and see him.

The new building is proving to have many uses and it is to be hoped that it will continue to be employed in the study and solution of problems in general practice.

DISCUSSION

A number of the investigators' predictions about the working of the new surgery premises were listed on page 14. To what extent does the study suggest that they were fulfilled?

The first four predictions, which were of a relatively straight forward character appear to have been realised, though the changes were usually of a moderate nature. In particular:-

1. The system appeared to function efficiently in terms of patients' average waiting time and the level of congestion in the new surgery - even in the first recording session in the new building barely a month after it became operational, the system appeared to be coping reasonably and improved as the staff settled down to work in it. Although the consulting load was at this time very heavy the consulting times were on average undiminished and waiting times were no greater than in the 'before' situation. However there was some overcrowding in the rather small waiting room.

2. The doctors' average consulting time in the experimental surgery premises was slightly greater than in the main surgery during the 'before' stage of this study and this time was distributed so that a greater proportion of it was spent on tasks considered central to the doctors' role. Thus in the new surgery more time was spent by the doctors in talking and listening and undertaking examinations and treatments, and less time was spent on administration and other 'service' or 'unproductive' activities.
   In addition the nurse spent an average of three minutes with each patient. Thus the total time a patient was receiving attention from the doctor/nurse team in the experimental premises was considerably greater than when the doctor was working alone in the 'before' period of the study.

3. More examination procedures per surgery contact were carried out under the new scheme although the increase was mainly of a kind considered appropriate for the nurse to undertake.

4. It appears that in the experimental surgery system the nurse did take over virtually all the examinations and treatments classified by the investigators as appropriate for her to undertake.

The fifth prediction, namely "a higher proportion of the doctor's time spent on the central elements of consultation should result in more careful diagnosis and treatment and so reduce the likelihood of the patient returning of his own volition" was more complex in character and it is not possible with any certainty

on the basis of the study to say whether or not it was fulfilled. The evidence available suggests that (a) for both doctors working in the experimental surgery there was an increased tendency to recall patients accompanied by a reduced incidence of repeat contacts initiated by patients in comparison with the 'before' situation in the main surgery building,

(b) it was likely that one of these doctors had increased his discharge rate relative to his repeat patient contact rate in the surgery (a crude indicator of the extent to which cases were being successfully coped with) and also to a marginal extent his discharge rate in relation to his new contact rate. Since this doctor was coping with a considerably increased demand in terms of new consultations in the experimental surgery this suggests that he was at least keeping pace with his extra work in a way which led to relatively fewer 'discharged' persons coming back for more attention. The other doctor in the new surgery also appeared to have increased his discharge rate in relation to the repeat contact rate but his discharge:new contact ratio was reduced, a combination of findings equally compatible with prediction 5 and the alternative explanation that he was simply bringing back more cases generally himself and thereby increasing his total surgery load.

The sixth prediction was concerned with the satisfaction of patients and staff with the experimental surgery. The workload data revealed no evidence of any reluctance on the part of patients to attend the doctors working in the new surgery. The patient surveys suggested that the great majority of patients who had attended the new unit liked the building and four out of five of these 'attenders' indicated that they liked a distinctive characteristic of the new scheme, namely their waiting in the consulting room for the doctor to come and see them.

'Attenders''views of the nurse were more complex. 39% of them thought that the medical care had improved following the introduction of the nurse (nearly all the rest were uncertain or thought there had been no change). There was very little opposition to seeing the nurse before the doctor; however they were divided in their opinions about the desirability of discussing their symptoms with a nurse. Patients were more likely to see the nurse as being beneficial to them than they were to state a liking for certain aspects of her role. Support for this view comes from the fact that the majority of respondents, especially the 'attenders', saw the nurse as being an advantage to the patient, but it appears that the reason for feeling this way was that she enabled the patient to see more of the doctor rather than because of the care she directly gave them.

Both before and after the opening of the new surgery premises patients were almost all in favour of the nurse performing traditional nursing procedures, but were divided about her undertaking tasks containing an element of diagnosis or other decision making (including 'seeing the patient before the doctor and

deciding whether an examination was needed'). Having 'experience' of the nurse working in the surgery had some effect in influencing respondents favourably towards this last activity, but even so in the 'after' survey respondents were generally less likely to favour the nurse undertaking diagnostic or decision making activities than they were in the 'before' survey. It must be stressed that the 'after' patients' survey took place only six months after the opening of the experimental premises and the patients may have seen any one of three nurses at the surgery. During this early period of the experimental scheme's life the nurses were operating within the constraints set down by the study, that is to say the doctor/nurse team was to carry out the same range of activities as the doctor had previously undertaken alone in the 'before' situation. It seems reasonable to conclude that despite the reservations of respondents as to how far the role of nurses should be extended they were generally very favourably disposed towards the new surgery and the way it ran. In particular there was no reason to suggest that two groups potentially vulnerable to change (namely the over-65's and mothers of young children) found the experimental scheme less acceptable than respondents as a whole.

The two doctors who used it both liked working there and found it reduced fatigue because of its design and since patients were prepared by the nurse before the doctor saw them. The third partner was at the time of the enquiry unconvinced of the benefits afforded by the new surgery premises over his accommodation and method of working in the main premises of the practice - indeed at that time he felt the new method of working to be more fatiguing. However, since the experiment was completed he has chosen to undertake one surgery session per week in the new building and he encourages patients to attend there who require certain types of examination procedures, for example post-natal examinations and physical examinations of the elderly. The nurses liked working in the new surgery but made the point that as a job it was acceptable for part-time nurses but doubted whether it offered sufficient scope for a full time nursing career.

In the particular practice situation studied the experimental scheme has thus undoubtedly been a success; it is liked by the patients who use it and the doctors and nurses who work in it. It has been seen that a number of the predictions on the consequences of introducing the system were confirmed by the data collected. Several factors appeared to contribute to its success; the pleasing general character of the building, the particular design features associated with the experimental scheme and the way the doctor/nurse teams worked in the scheme.

As implemented in this practice the scheme required some capital expenditure and additional nursing staff (see appendix 4). Each doctor used three consulting rooms occupying a total of 22 square metres and made use of half of the central area which had a floor area of 37 square metres. The revised version of the

Design Guide[1] recommends that in a health centre the doctor's consulting room should be 13.5 square metres with an examination room 6.5 square metres. Thus on the face of it the experimental scheme uses about twice as much space per doctor as is recommended for a health centre[2]. However, most of the extra space in the experimental surgery was in fact the central area (see plan, page 9) which is in one sense a wide corridor and would replace some conventional space of this kind; and because of the way the scheme works less waiting room space per doctor would be required. Also the central area has some of the characteristics of a treatment room (the revised Design Guide[1] recommends 4.25 square metres per doctor of treatment room space in a health centre). Moreover the large central area used in conjunction with the consulting rooms has a variety of uses in addition to that of providing additional surgery accommodation. For example, in the unit studied it had been used for child health clinics, minor surgery clinics, ante-natal relaxation classes and for teaching and lecturing purposes. Thus if accommodation of the experimental kind were provided at the health centre it is reasonable to see it as replacing at least some of the spaces conventionally provided for such activities as well as providing consulting rooms for general practitioners.

In the experimental unit, each doctor needs the assistance of one nurse in surgery sessions, given the way the system works, and in fact the experimental scheme was staffed by four part-time nurses serving for a total of 64 hours per week; that is in effect just under one full-time nurse per doctor. By contrast it is recommended in the revised Design Guide[1] that one treatment room nurse can cope with the work of four doctors. Thus in the experimental scheme the demand for nurses' time is apparently considerably greater than that required when the nurse is based in a treatment room in the conventional way; however her job description (see pages 12 and 100) is rather different from that of a treatment room nurse.

So is the experimental scheme to be recommended and if so in what circumstances?

First it is important to note that there are two main, and to some extent separable, features in the experiment:-

1. The particular method of working in ordinary general practice surgery sessions and
2. The new surgery building specially designed for this method of working but with a number of other uses as well.

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[1]Health Centres - A Design Guide, Revised Draft (1974), Department of Health and Social Security.

[2]There is also some additional equipment involved though the three consulting rooms in the experimental surgery were more simply

As to the method of working, the views of patients and staff and the changes in consulting characteristics associated with it have been discussed above. The way in which a general practitioner chooses to work is very much a personal matter and no doubt readers' opinions will vary as to the significance for their situation of the findings of this study. However, it is arguably a recommendation in itself that some three years after the end of the field work the two doctors who used the method originally continue to do so with every satisfaction, and the third partner, originally highly sceptical of the whole idea, now adopts it for some purposes.

Particularly interesting is the persisting impression of the doctors using the method for all their ordinary surgery work (each with lists of around 3,000 patients) that it enabled them to cope with large numbers of attenders at the surgery with much less fatigue than when operating in the conventional way. This was not because the experimental method reduced their average consulting time per patient but rather, probably, a consequence of the constant movement and opportunity for interaction of the doctor and nurse in the team (perhaps another contributory factor is that the telephones are outside the consulting room and only answered between consultations).

This method of working then is recommended as one means of mitigating the effects of long surgery sessions. For those who contemplate testing the method for themselves, it is worth recalling that it was originally tried for some ordinary sessions in the practice studied using two consulting rooms in the main surgery building with existing staff (see page 2).

Turning next to the experimental surgery building itself, it is recommended that the possibility be explored of including a clinical area of this type, in lieu of conventional accommodation, for some of the general practitioners and others working with them in a health centre. Given the many uses of such a clinical area it could, if agreement were reached on the conventional working areas it was to replace, and on a policy for operating it intensively, provide a useful and highly adaptable addition to the range of accommodation usually found in a health centre with little or no extra capital outlay.

Finally, the reader is reminded that the end product of the research described above is not just a report but an operational unit which welcomes visits and enquiries from those who want to explore its possibilities further.

REFERENCES

Bevan, J.M. and Cunningham, D.J. (1975) Activity Sampling in General Practice: An Assessment of the 'Bleep Method'. Canterbury : University of Kent, Q.S.S. Discussion Paper No. 21.

Cartwright, A. (1967) Patients and their Doctors: a study of general practice. London : Routledge and Kegan Paul.

Cartwright, A., and O'Brien, M. (1976) Social class variations in health care and in the nature of general practitioner consultations in The Sociology of the NHS, ed. Stacey, M. Sociological Review Monograph, 22, 77-98.

Cunningham, D.J., Bevan, J.M. and Floyd, C.B. (1972)

Community Medicine. 128, 534-538.

Dyche, G.M. and Bevan, J.M. (1976) Shoreham-by-Sea Health Centre : The views of some of the patients and family doctors. Canterbury : University of Kent, Health Services Research Unit Report No. 21.

Floyd, C.B. (1968) British Medical Journal. 2, 614-617.

Floyd, C.B. and Livesey, A. (1975) Journal of the Royal College of General Practitioners, 25, 425-431.

Hawthorn, P.J. (1971) The Nurse working with the General Practitioner : an evaluation of research and a review of the literature, London : Department of Health and Social Security.

King, S.H. (1962) Perceptions of Illness and Medical Practice. New York Russell Sage Foundation.

Lance, H. (1971) Transport services in general practice : an experiment in five general practices. Supplement No. 3. Volume 21 (No. 111) The Journal of the Royal College of General Practitioners.

Lees, R.E.M. and Anderson, R.M.A. (1971) Canadian Medical Association Journal, 105, 1164-1168.

Lees, R.E.M. (1973) Canadian Medical Association Journal. Volume 108, No. 7, 871-875.

MacDonald, M.D., Morgan, D.C. and Tucker, A.M. (1974) Journal of the Royal College of General Practitioners, 24, 29-36.

Morrell, D.C., Gage, H.G. and Robinson, N.A. (1970) Journal of the Royal College of General Practitioners, 19, 331-342.

Patients' Association Press Release (1972). Comments on Organisation of Group Practice.

Weston Smith, J. and O'Donovan, J.B. (1970), British Medical Journal, 3, 673-7.

APPENDIX 1

Totals sheet: doctor's items of service (basic work load data form)

Timing (chronostamp) data collection form

Bleep (activity analysis) collection form

Glossary of terms used on the bleep (activity analysis) data collection form

Patient referral data collection form

Patient analysis data collection form

Glossary of terms used on patient analysis data collection form

Totals Sheet ; Doctor's Items of Service

Week commencing	Surgery and Clinics				Home Visits			
	a.m.	p.m.	eve	off use	New	Rep	cas	Not known
1. Monday								
2. Tuesday								
3. Wednesday								
4. Thursday								
5. Friday								
6. Saturday								
7. Sunday								

COMMENTS

Source : Lance, H. (1971)

TIMING (CHRONOSTAMP) DATA COLLECTION FORM

Name _____

_____

Appointment time _____

None _____ Car _____

Arrival	Office Use	Departure by Car
Surgery Nurse		Leaving
Doctor		Leaving
Surgery Nurse		Leaving

BLEEP (ACTIVITY SAMPLING) DATA COLLECTION FORM

DATE.....

DR/NURSE .....CLINIC/SURGERY

TOTAL PATIENTS SEEN .....

START .....

FINISH .....

TOTAL MINUTES .....

TOTAL BLEEPS .....

BLEEPS IN MINUTES .....

+ UNRECORDED TIME .....

TOTAL .....

MISSED MINUTES .....

Waiting

Dress/Undress

Gap Thinking

Unrecorded time
Representative

DOCTOR TALKING
Patient Staff

DOCTOR LISTENING
Patient Staff

Writing including dictating

Notes

Prescriptions

Repeat

Certificates

Other Writing

SEARCH Notes, forms, drugs, letters

READING Notes, letters, reference books

MISCELLANEOUS Walking, Washing

TELEPHONE
Internal Outside

Examination Nurse could do
T.P.R.
B.P.
Weighing
Urine
Eye test
Taking blood
Other

Preparation
Instruments

Examination Doctor must do
Ears
U.R.T.
Chest/lungs
Heart
Abdomen
P.V.
P.R.
C.N.S.
Orthopaedic
Face
Eyes
Glands
Skin

Treatment Nurse could do
Dressing
Bandages
Strapping
Injection
Other

Treatment Doctor must do
Vaccination
Other

GLOSSARY OF TERMS USED ON BLEEP (ACTIVITY SAMPLING) DATA COLLECTION FORM

Waiting	- Waiting for one patient to leave and another to enter surgery
Undressing	- Waiting for patient to undress
Dressing	- Waiting for patient to dress
Gap	- Gap between one procedure and the next
Thinking	- Obvious
Representative	- Seeing a drug house representative
Unrecorded time	- Tea/coffee, major interruption in the surgery, also outside emergency. Time recorded and put on 'minus' line at top of sheet and deducted from total time of surgery
Doctor talking/listen	- Either to the patient in surgery consultation or to a member of the staff (face to face interaction)
Writing notes	- Writing notes in patient's folder
Writing prescriptions	- Writing prescriptions
Writing certificates	- Private or National Health Certificates, or Maternity
Other writing	- Letters to hospital, forms for X-ray, blood test, urine test, vaccination forms, eye test
Search	- Notes - Looking through notes to see what patient has had etc Forms - Looking for a particular form Drugs - Looking in drug cupboard for a particular hospital letter
Reading	- Obvious
Telephone	- Obvious
Miscellaneous	- Walking around surgery or washing
Examination Nurse could do -	
TPR	- Temperature
BP	- Blood pressure
Weighing	- Obvious
Urine	- Urine test/sample
Eye test	- Obvious
Taking blood	- Obvious

Examination Doctor
must do -

Ears	- Looking at
URT	- Upper respiratory tract
Chest/lungs	-
Heart	
Abdomen	
PV	- Per vagina
PR	- Per rectum
CNS	- Central nervous system
Orthopaedic	-
Face	-
Eyes	-
Glands	-
Skin	-
Preparation of instruments	-

Treatment Nurse
could do -

Dressing
Bandages
Strappings
Injection

Treatment Doctor
must do -

Vaccination

PATIENT REFERRAL FORM

Date.................

Surgery ....

Dr ....

Section		Item
Name		
Type of Consultation	Pt inst	New
		Rpt for second opinion
		Rpt - patient
	Dr inst	Rpt - Doctor
Return action		Return Dr - 7 days
		Return Dr - 8-14 days
		Return Dr - 15-28 days
		Return Dr - more than 1 month
		Discharge (TCA SOS)
Referrals		Hospital In-patient
		Hospital Out-patient
		Psychiatrist
		Practice Nurse
		District Nurse
		Health Visitor
		Clinic
		Other Doctor
		Path Lab X-ray
		Other
		Prescription given
		No prescription given
		Interruption

RECORDING SESSIONS 1 2 3 4 PATIENT ANALYSIS FORM

NAME ..... NUMBER .....

SEX Male 1 Female 2

AGE ..... DATE OF BIRTH .....

MARITAL STATUS Single 1 Married 2 Wid/Div/Sep 3

TYPE OF CONSULTATION New 1 2nd Opinion 2 Rep/Pat 3 Rep/Dr 4

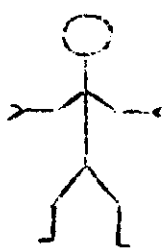
COMPLAINT

C. Dis	Neopl	AEMN	Blood	Ment	Nerv	Circ
01	02	03	04	05	06	07
Resp	Digt	G/U	Preg	Skin	Bone	Cong
08	09	10	11	12	13	14
Infy	Sympt	Exam	Soc Prev	Advice	Acc	Other
15	16	17	18	19	20	21

LENGTH

-10d. = 1
10d -3/12 = 2
3/12 + = 3

PREPARATION REQUIRED



EXAMINATION

T.P.R.	B.P.	Weigh	Urine	Eye Test	Blood)	N.C.D.
01	02	03	04	05	06)	

Ears	U.R.T.	Chest) Lungs)	Heart	Abd	P.V.	P.R.))))	Doctor
10	11	12	13	14	15	16	

C.N.S.	Orth	Face	Eyes	Glands	Skin	Other))
17	18	19	20	21	22	23

No Examination 30

PREPARE INSTRUMENT Yes 1 No 2

TREATMENT Dress 1 Strap 2 Band 3 Inj 4 Syr 5 Other 6

ACTION

D	RGS	RGV	RNS	RNV	RX	SPS	SP	PC	NC	IO	OP	X	Other
01	02	03	04	05	06	07	08	09	10	11	12	13	14

GLOSSARY OF TERMS USED ON THE PATIENT ANALYSIS FORM

Type of Consultation

New	- Patient initiated
Rep 2nd Opinion	- Repeat visit - patient initiated
Rep/Dr	- Repeat visit - Dr initiated
Rep/Pat	- Repeat visit - patient initiated

Complaint

C. Dis	- Communicable diseases
Neopl	- Neoplasms
AEMN	- Allergic, endocrine system, metabolic and nutritional diseases
Blood	- Diseases of the blood and blood forming organs
Ment	- Mental, psychoneurotic and personality disorders
Nerve	- Diseases of nervous system and sense organs
Circ	- Diseases of the circulatory system
Resp	- Diseases of the respiratory system
Digt	- Diseases of the digestive system
G/U	- Diseases of the genito-urinary system
Preg	- Deliveries and complication of pregnancy, childbirth and puerperium
Skin	- Diseases of skin and cellular tissue
Bone	- Diseases of bones and organs of movement
Cong	- Congenital malformations
Infy	- Certain diseases of early infancy
Sympt	- Symptoms and ill-defined conditions
Exam	- Examinations
Soc, Prev	- Social and preventive measures
Advice	- General medical advice
AC	- Accidents, poisoning and violence
Other	

(ref Royal College of General Practitioners classification of morbidity revised 1963)

Length

- 10d	- The condition has lasted less than 10 days
10d - 3/12	- The condition has lasted between 10 days and three months
+ 3/12	- The condition has lasted more than 3 months

Examination

TPR	- Temperature
BP	- Blood Pressure
Weigh	
Urine	- Urine test/sample
Eye Test	
Blood	- Taking of blood
Ears	- Looking at
URT	- Upper respiratory tract
Chest/Lungs	
Heart	
Abd	- Abdomen
PV	- per vagina
PR	- per rectum
CNS	- Central nervous system
Orth	- Orthopaedic
Face	
Eyes	
Glands	
Skin	
Other	

Treatment

Dress	- Dressing
Strap	- Strapping
Band	- Bandaging
Inj	- Injection
Syr	- Syringing
Other	

Action

D	- Discharge
RGS	- Return consultations with the doctor at surgery
RGV	- Return consultations with the doctor at home
RNS	- Return consultations with nurse at surgery
RNV	- Return consultations with nurse at home
RX	- Prescription
SPS	- Specimen taken and analysed at the surgery this applies to all specimens either taken by a doctor or another person, e.g. nurse at doctor's request

SP	- Specimen analysed at hospital laboratory
PC	- Private certificate
NC	- National Insurance Certificate
IO	- In patient referral
OP	- Out patient referral
X	- X ray referral
Other	

APPENDIX 2

Letter (accompanying both 'before' and 'after' postal questionnaires.

'Before' postal questionnaire.

'After' postal questionnaire.

List of additional questions asked in the 'before' and 'after' interview schedules.

Staff interview schedule.

UNIVERSITY OF KENT AT CANTERBURY
HEALTH SERVICES RESEARCH UNIT

CORNWALLIS BUILDING
THE UNIVERSITY
CANTERBURY
KENT
CT2 7NF

TELEPHONE (0227) 66822

DIRECTOR

PROFESSOR MICHAEL D. WARREN

Date as postmark

Before Postal Questionnaire Survey

Dear

As you perhaps know a great number of changes are being carried out in the National Health Service to improve the standard of medical care offered to the public.

The Department of Health and Social Security is anxious to know the opinions of the public and has asked the Centre for Social Research at the University of Kent to carry out a survey of the public's opinions about general practice.

Your own doctors have given the project their full support and both they and the Department of Health and Social Security are interested in obtaining the opinions and information from patients about the present service, and about possible improvements in the future.

You have been selected by a random sampling method from your doctor's list. We should be most grateful if you would complete the enclosed questionnaire and return it, as soon as possible, in the stamped addressed envelope provided. Naturally all your answers will be treated confidentially and neither the Department of Health and Social Security nor your doctor will be able to learn the identity of the people answering the questionnaire.

Yours sincerely,

DIANE J. CUNNINGHAM
Research Supervisor

BEFORE POSTAL QUESTIONNAIRE

UNIVERSITY OF KENT AT CANTERBURY

1. Who is your present doctor?

(Please tick one box)

- Dr. Coole ☐
- Dr. Floyd ☐
- Dr. Stockley ☐
- other - state _____

2. How long have you been registered with your present doctor?

(Please tick one box)

- Less than one year ☐
- 1 - 2 years ☐
- 3 - 5 years ☐
- 5 - 10 years ☐
- 10 - 15 years ☐
- 15 years and over ☐

3. How did you come to choose your present doctor?

(Please tick one box)

- recommended *** ☐
- nearest doctor to my home ☐
- knew/met him ☐
- wanted a woman doctor ☐
- register of G.Ps. ☐
- other - state _____

*** If you ticked RECOMMENDED, who recommended your present doctor to you?

(Please tick one box)

relative ☐

neighbour/friend ☐

other doctor ☐

other - state _____

_____

4. How important do you think it is for your doctor to have the things listed below?

	Very Important	Fairly Important	Not Important	Don't Know
An appointment system				
A nurse to help the doctor in surgery				
A minibus service to bring patients to the surgery				
A receptionist				
Equipment for regular check ups or examinations				
A secretary (typist)				
A separate room for the patient to undress for an examination				

Now please say if your own doctor has these things, or if he has not, whether you would like your own doctor to have them.

	Own doctor has got	Don't know whether my doctor has these	Would like my own doctor to have
An appointment system			
A nurse to help the doctor in surgery			
A minibus service to bring patients to the surgery			
A receptionist			
Equipment for regular check-ups or examinations			
A secretary (typist)			
A separate room for the patient to undress for examination			

5. Some doctors have a nurse to help them in the surgery.
Have you attended any clinics or surgeries at your own doctor's practice, where a nurse has helped the doctor?

(Please tick one box)

Yes ☐

No ☐

Don't know ☐

IF YOUR ANSWER TO QUESTION 5(a) WAS YES, PLEASE ANSWER SECTIONS (b) and (c) ALSO

(b) Do you have any views about seeing the nurse first?

(Please tick one box)

Favourable ☐

Don't mind ☐

Unfavourable ☐

Please state any reactions or feelings you may have had.

_____

(c) How do you find the nurse to talk to?

(Please tick one box)

Easy ☐

all right ☐

difficult ☐

_____

6. (a) Do you think it is an advantage or disadvantage to the patient if the doctor uses a nurse?

(Please tick one box)

advantage ☐

doesn't matter ☐

disadvantage ☐

(b) Please state in what way this was an advantage or disadvantage.

_____

7. What do you think about the nurse doing the following things for the doctor?

	Good Idea	Doesn't Matter	Bad Idea
The nurse seeing patients on arrival and deciding if examination necessary			
A nurse visiting patients in their homes on the doctor's behalf			
The nurse giving injections			
The nurse treating patients with minor cuts and burns			

8. Do you live alone or with your family?

(Please tick all the boxes which apply to you)

- alone ☐
- wife/husband ☐
- children ☐
- parents ☐
- brother/sister ☐
- grandparents ☐

other - state _____

_____

9. (a) Over the last 12 months how many different doctors from the practice have you seen for yourself or with one of your family?

(Please tick one box)

- 1 doctor ☐
- 2 doctors ☐
- 3 doctors ☐
- 4 or more doctors ☐
- Don't know ☐

(b) During the last 12 months has your doctor or another doctor in the practice visited you or one of your family at home?
How many times?

(Please tick one box)

- None ☐
- Once ☐
- 2 - 4 ☐
- 5 - 9 ☐
- 10 - 15 ☐
- 15 or more times ☐
- Don't know ☐

(c) During the last 12 months have you been to your doctor's surgery to see your doctor or one of his partners for yourself or one of your family?

(Please tick one box)

- None ☐
- Once ☐
- 2 - 4 ☐
- 5 - 9 ☐
- 10 - 15 ☐
- 15 or more ☐
- Don't know ☐

10. How long ago was it that you consulted your own doctor for <u>yourself</u>?

(Please tick one box)

- 1 week - 4 weeks ☐
- 1 - 3 months ☐
- 3 - 6 months ☐
- 6 months - 1 year ☐
- 1 - 2 years ☐
- 2 years or more ☐
- Don't know ☐

11. Where did you see your doctor on that occasion?

(Please tick one box)

- Home ☐
- Surgery ☐
- Clinic ☐
- Hospital ☐
- Other - state _____

12. What time of the year was it when you last consulted your doctor?

(Please tick one box)

- Winter ☐
- Spring ☐
- Summer ☐
- Autumn ☐
- Don't know ☐

13. (a) The last time you consulted your doctor, how long did you have to wait to get an appointment/visit?

(Please tick one box)

- Same day ☐
- Next Day ☐
- 3 days ☐
- 4 - 7 days ☐
- 1 week or more ☐

If a delay of more than one day, please answer (b)

(b) Why could you not see the doctor sooner?

- Own doctor not on duty ☐
- Own doctor ill/holiday ☐
- Own doctor fully booked ☐
- Unable to go at the time offered by the doctor's receptionist ☐
- All the doctors in the practice fully booked ☐

Other - state _____

_____

14. How long do you think you were with the doctor? i.e. at the last consultation with him?

(Please tick one box)

- 1 - 3 minutes ☐
- 3 - 5 minutes ☐
- 5 - 7 minutes ☐
- 7 - 10 minutes ☐
- 10 + minutes ☐
- Don't know ☐

_____

15. Did you feel that this was long enough?

(Please tick one box)

Yes ☐

No ☐

Don't know ☐

If NO - why was that?

16. If your own doctor is not available when you wish to see him but will be available later in the day, which of the following would you prefer to do.

(Please tick one box)

a) See another doctor ☐

b) See your own doctor later in the day when he is available ☐

c) Other - state _____

_____

17. If your own doctor is not available at the surgery on the day you wish to see him, which of the following would you prefer to do?

(Please tick one box)

a) See another doctor ☐

b) See your own doctor another day ☐

c) Other - state _____

_____

WHEN THE RESULTS OF THE SURVEY ARE ANALYSED WE NEVER MENTION THE NAMES OF THE PEOPLE INTERVIEWED, BUT WE LIKE TO BE ABLE TO CLASSIFY EACH PERSON ACCORDING TO SUCH THINGS AS AGE, SEX, OCCUPATION, ETC. NATURALLY ALL THIS INFORMATION IS STRICTLY CONFIDENTIAL AND IN NO CASE CAN A PERSON'S IDENTITY BE DISCOVERED.

18. Marital Status

(Please tick one box)

- Single ☐
- Married ☐
- Widowed ☐
- Divorced/separated ☐

19. Do you go to work?

(Please tick one box)

- Full-time ☐
- Part-time ☐
- Unemployed ☐
- Retired ☐

Other - state _____

20. What is your present job?

(Can you please give a description of the sort of work you do)

(If you are retired, can you describe your last job)

e.g. Clerical Officer at local town hall.
Television Engineer for Rediffusion.

21. If you are a married woman, what is your husband's job?

22. At what age did you finish full-time education?

(Please tick one box)

- Under 14 years ☐
- 14 years ☐
- 15 - 16 years ☐
- 17 - 18 years ☐
- 19 + years ☐

---

23. (a) What type of school was your last one?

(Please tick one box)

- (fee paying) Public/ Private/Direct Grant ☐
- Comprehensive/ Bilateral ☐
- Modern ☐
- Grammar ☐
- Elementary ☐
- Technical ☐

Other - state _____

(b) Have you got any higher educational or industrial qualifications? e.g. G.C.E. or H.N.C. or C.S.E.

(Please state)

24. Lastly, where were you born?

If born in Great Britain, please state town and county, e.g. Bishop's Stortford, Herts.
If born abroad, please state country, e.g. Jamaica, West Indies.

THANK YOU VERY MUCH FOR YOUR TIME AND CO-OPERATION

Please would you return the questionnaire in the enclosed stamped addressed envelope by 15th May 1970.

DC/SS
30.4.70.

UNIVERSITY OF KENT AT CANTERBURY
HEALTH SERVICES RESEARCH UNIT

CORNWALLIS BUILDING
THE UNIVERSITY
CANTERBURY
KENT
CT2 7NF

TELEPHONE (0227) 66822

DIRECTOR

PROFESSOR MICHAEL D. WARREN

Date as postmark

After Postal Questionnaire Survey

Dear

As you perhaps know a number of changes are being carried out in the Family Doctor Services.

The Department of Health and Social Security is anxious to know the opinions of the public and has asked the Health Services Research Unit at the University of Kent to carry out a survey of the Public's opinions about general practice.

Your own doctor has given the project his full support and both he and the Department of Health and Social Security are interested in obtaining the opinions and information from patients about the present service and about possible improvements in the future.

You have been selected from a random sample of your doctor's list (of registered patients) and we hope that you will be willing to help our interviewer when she calls within the next three days.

All the doctors concerned have agreed to this project and give it their full support. At the same time all your answers will be treated confidentially and neither the Department of Health and Social Security nor your doctor will be able to learn the identity of the people answering the questionnaire.

We should be most grateful if you would co-operate with the interviewer as your views will help us to plan for a better medical service.

Yours sincerely,

Diane J. Cunningham
Research Fellow

CODE NO.

CROYDON QUESTIONNAIRE

All details given on this form will be regarded as strictly confidential.

1. Who is your present doctor?

   Please tick one

   - Dr. Coole ☐
   - Dr. Floyd ☐
   - Dr. Stockley ☐
   - Other (please state) ☐

   .....

   .....

2. How long have you been registered with your present doctor?

   Please tick one

   - Less than 1 year ☐
   - 1 - 5 years ☐
   - 6 - 10 years ☐
   - 11 years or more ☐

3. Some doctors have a nurse to help them at the surgery. Does your doctor have a nurse?

   Please tick one

   - Yes ☐
   - No ☐
   - Don't know ☐

   If 'No' or 'Don't know', go to Question 8

4. (a) Have you attended any clinics or surgeries at your doctor's surgery, where a nurse has helped the doctor?

   Please tick all the boxes which apply to you

   - No ☐
   - Yes - surgery ☐
   - Yes - clinic ☐
   - Other (please state) ☐

   .....

   .....

4. (b) How many times have you attended any clinics or surgeries at <u>your own doctor's surgery</u> where a nurse has helped the doctor?

None ☐

1 - 4 ☐

5 - 9 ☐

10 - 15 ☐

15 or more ☐

5. Do you have any views about seeing the nurse before the doctor?

Please tick <u>one</u>

Favourable ☐

Don't mind ☐

Unfavourable ☐

Please state any reactions or feelings you may have had

.....

.....

.....

6. How did you feel about discussing your symptoms/problems with the nurse?

Please state any reactions or feelings you may have had

.....

.....

.....

7. Do you feel that the introduction of a nurse has influenced the medical care you receive at your doctor's surgery?

Please tick <u>one</u>

Unchanged ☐

Better care ☐

Worse care ☐

Don't know ☐

Can you say in what way?

.....

.....

.....

ALL ANSWER THESE QUESTIONS

8. (a) Do you think it is an advantage or disadvantage to the patient if the doctor is assisted by a nurse?

Please tick one

Advantage ☐

Does not matter ☐

Disadvantage ☐

(b) Please state in what way this is an advantage or disadvantage

.....

.....

.....

9. (a) Do you think it is an advantage or disadvantage to the doctor if the doctor is assisted by a nurse?

Please tick one

Advantage ☐

Disadvantage ☐

Does not matter ☐

(b) Please state in what way this is an advantage or disadvantage

.....

.....

.....

10. What do you think about the nurse doing the following things for the doctor?

	GOOD IDEA	DOESN'T MATTER	BAD IDEA
(a) The nurse seeing patients on arrival and deciding if examination is necessary			
(b) The nurse visiting patients in their homes on the doctor's behalf			
(c) The nurse giving injections			
(d) The nurse treating patients with minor cuts and burns			
(e) The nurse deciding on what drugs or medicine the patient needed			
(f) The nurse giving advice on child rearing problems			
(g) The nurse helping the elderly patients to get ready to see the doctor			

11. Would you indicate by ticking in the appropriate column (✓) <u>whom you would prefer</u> to do the following things related to your health care.

	DOCTOR	NURSE	EITHER
(a) Syringe ears			
(b) Examine you if you had a sore throat			
(c) Advise you on contraceptive or family planning methods			
(d) Discuss marriage or family problems			
(e) See you periodically to assess your progress if you had a chronic illness such as diabetes, arthritis, or high blood pressure			
(f) Give telephone advice about whether a visit to the surgery is necessary			

12. Here are some comments that people have made about nurses working at doctors' surgeries. Can you tell me whether you strongly agree, agree, are uncertain, disagree, or strongly disagree?

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
(a) The nurse saves the doctor's time					
(b) The nurse upsets the patient's relationship with the doctor					
(c) Many illnesses and complaints only need to be seen by the nurse					
(d) The nurse could advise patients whether they needed to see the doctor					
(e) The nurse should only carry out doctor's instructions					
(f) The nurse should only help women patients					

13. During the last 12 months (i.e. since 1st April 1972) has your doctor or another doctor in the practice visited you or one of your family at home? How many times?

Please tick one

- None ☐
- 1 - 4 ☐
- 5 - 9 ☐
- 10 - 15 ☐
- 15 or more ☐
- Don't know ☐

14. During the last 12 months (i.e. since 1st April 1972) have you been to your doctor's surgery to see your doctor or one of his partners for yourself or one of your family? How many times?

Please tick one

- None ☐
- 1 - 4 ☐
- 5 - 9 ☐
- 10 - 15 ☐
- 15 or more ☐
- Don't know ☐

15. If your doctor is not available when you wish to see him but will be available later in the day, which of the following would you prefer to do?

Please tick one

- See another doctor who is at the surgery ☐
- See nurse who is at the surgery ☐
- See your own doctor later on the same day ☐
- Other ☐

If 'Other' please say what you would do

.....

.....

.....

16. If your own doctor is not available at all at the surgery on the day you wish to see him, which of the following would you prefer to do?

Please tick one

- See another doctor ☐
- See nurse ☐
- See your own doctor another day ☐
- Other ☐

If 'Other' please say what you would do

.....

.....

.....

17. Have you yourself been or taken someone else to see a doctor at the new surgery premises (annexe) in the garden of 501 London Road? If so, how many times?

Please tick one

- None ☐

If None, go to Question 22

- 1 - 4 ☐
- 5 - 9 ☐
- 10 - 15 ☐
- 15 or more ☐

18. Do you think the new surgery has any disadvantages or advantages for the patient?

Please tick one

- Advantage ☐
- Doesn't matter ☐
- Disadvantage ☐

Please state in what way

.....

.....

.....

19. What are the main features about the new surgery you like or dislike?

Please give one tick for each feature

	Like	Dislike	Any comments you may wish to make
(a) Layout of the new building	☐	☐	.....
(b) New consulting rooms	☐	☐	.....
(c) Waiting room	☐	☐	.....
(d) Your waiting in the new consulting room for the doctor to come to see you	☐	☐	.....

Other features please state

.....

.....

.....

20. Do you feel you have more or less privacy in the new consulting rooms compared with the old surgery consulting room?

Please tick one

- More privacy ☐
- Less privacy ☐
- Same ☐

21. Where would you prefer to be seen by your doctor?

Please tick one

- Your doctor's new surgery ☐
- Your doctor's old surgery ☐
- At your home ☐
- Don't mind where ☐

Why do you prefer this place?

.....

WHEN THE RESULTS OF THE SURVEY ARE ANALYSED WE NEVER MENTION THE NAMES OF THE PEOPLE INTERVIEWED BUT WE LIKE TO BE ABLE TO RELATE TO SUCH THINGS AS AGE, SEX, OCCUPATION, ETC. NATURALLY, ALL THIS INFORMATION IS STRICTLY CONFIDENTIAL AND IN NO CASE CAN A PERSON'S IDENTITY BE DISCOVERED

22. Sex

Please tick one

- Male ☐
- Female ☐

23. Marital Status

Please tick one

- Single ☐
- Married ☐
- Widowed ☐
- Divorced ☐
- Separated ☐

24. Do you go to work?

Please tick one

- Full time ☐
- Part time ☐
- Unemployed ☐
- Student ☐
- Retired ☐
- Housewife ☐
- Other (please state) ☐

.....

.....

25. What is your present occupation/job? Can you please give a description of the sort of work you do? (If retired or unemployed, can you describe your last job?) e.g. Television Repair Man for Rediffusion.

.....

.....

.....

26. If you are a married woman, can you describe your husband's present job/ occupation? (If retired or unemployed, what his last job was).

.....

.....

.....

Now lastly I would just like to ask you a few questions about your household, i.e. the members of your family or friends who live in the same house with you.

27. How many in your household are under 5?

number of children under 5 .....

28. How many in your household are aged

between 5 and 15 .....

29. How many in your household are aged

over 65 years .....

30. How many people are there in your household <u>including</u> yourself? .....

31. Lastly, where were you born? .....

(If born in Great Britain, please state town and county, e.g. Canterbury, Kent. If born abroad, please state country, e.g. Jamaica, West Indies.)

<u>THANK YOU VERY MUCH FOR YOUR TIME AND CO-OPERATION</u>

LIST OF ADDITIONAL QUESTIONS ASKED IN THE 'BEFORE' AND 'AFTER' INTERVIEW SCHEDULES

Copies of the interview schedules are available on request from Diane Cunningham, Health Services Research Unit, Cornwallis Building, The University, Canterbury, Kent.

Basically the interview schedules covered the same topics as the corresponding postal questionnaires, together with certain additional material. For the purposes of this report note that:-

1. In the 'before' interview schedule the question on the respondents' views about the nurse undertaking the four activities listed in question 7 of the 'before' postal questionnaire was not included.

2. In the 'after' interview schedule the following questions additional to those in the 'after' postal questionnaire are referred to in this report. (The questions were put only to respondents who had stated that they had attended at a surgery or clinic at their doctors' own surgery premises where a nurse was assisting the doctor and relate to the last time the respondent went to such a surgery or clinic where a nurse was assisting the doctor.)

22. Did the nurse do any of the following to you on that occasion?

		*Reaction to this
(i) Ask you to get undressed	Yes 1 No 2	_____
(ii) Take your temperature	Yes 1 No 2	_____
(iii) Take your blood pressure	Yes 1 No 2	_____
(iv) Examine you	Yes 1 No 2	_____
(v) Take down your medical history	Yes 1 No 2	_____
(vi) Give you advice on the condition	Yes 1 No 2	_____

* Probe for reactions, how did you feel about this, etc.)

23. How long do you think you were with the nurse?

1 - 2 minutes	1
3 - 5 minutes	2
6 - 7 minutes	3
8 - 10 minutes	4
10 + minutes	5
D.K.	

24. Do you think this was long enough?

Yes	1
No	2
D.K.	3

If No, why not?

_____

_____

26. How long do you think you were with the doctor?

1 - 2 minutes	1
3 - 5 minutes	2
6 - 7 minutes	3
8 - 10 minutes	4
10+ minutes	5
D.K.	9

27. Do you think this was long enough?

Yes	1
No	2
D.K.	3

If No, why not? _____

_____

_____

INTERVIEW WITH STAFF AT STUDY PRACTICE

Name of respondent .....

Status of respondent

Doctor	1
Practice nurse	2
District nurse	3
Health visitor	4
Receptionist	5
Other	6

please specify .....

How long have you been working at this practice?

Less than 1 year	1
1-3 years	3
4-5 years	3
5 years plus	4

Now I would like to ask you a few questions about the new building.

What are the main features about the new surgery you like or dislike?

Comments

(a) Layout of the new building

Like ☐ .....

.....

.....

Dislike ☐ .....

.....

.....

(b) Waiting room

Like ☐ .....

.....

.....

Dislike ☐ .....

.....

(c) New consulting rooms

Like ☐ .....

.....

.....

Dislike ☐ .....

.....

.....

(d) The general arrangement for the flow of patients from the waiting room to consulting room.

Like ☐ .....

.....

.....

Dislike ☐ .....

.....

.....

(e) The central area

Like ☐ .....

.....

.....

Dislike ☐ .....

.....

.....

(i.e. perhaps probe uses or potential uses etc.)

Can you put in a few words <u>your</u> overall impression of the new surgery

.....

.....

.....

.....

.....

Now I would like you to compare the new building with the main surgery premises.

Where would you prefer to work?

Main surgery 1

New surgery 2

Can you tell me why that is? .....

.....

.....

How do you find work in the new system from a doctor's/receptionist's /nurse's/secretary's point of view?

.....

.....

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.....

What advantages or disadvantages do you think the new surgery has from a doctor's/receptionist's/nurse's/secretary's point of view?

.....

.....

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.....

.....

Do you think the new surgery has any advantages or disadvantages <u>for the patient</u>?

Advantage 1

Doesn't matter 2

Disadvantage 3

Please state in what way .....

.....

.....

.....

Do you feel the patient has more or less privacy in the new consulting room than with the main surgery consulting room?

More privacy	1
Less privacy	2
Don't know	3

Where do you think patients would prefer to be seen by their doctor?

Your doctor's new surgery	1
Your doctor's old surgery	2
At your home	3
Don't mind where	4

Why do you prefer this place? .....

.....

.....

APPENDIX 3

Table 1. Before postal survey (1970) - distribution by age and sex of

i. practice population (in age range 18 - 64 years),

ii. sample approached,

iii. respondents, and

iv. non respondents (including those who could not be contacted).

Table 2. Before interview survey (doctor C's patient only were approached) - distribution by age and sex of

i. Doctor C's patients in age range 18 - 64 years,

ii. the sample approached, and

iii. the respondents.

Table 3. After (follow up) postal survey (1973) - distribution by age and sex of

i. those who responded in 1970 (in terms of ages as at time of 1973 survey),

ii. the respondents from among this group in 1973 (the survivors), and

iii. the non respondents from among this group in 1973.

Table 4. After (follow up) interview survey (1973) - distribution by age and sex of

i. those who responded in 1970 (in terms of ages as at time of 1973 survey), and

ii. the respondents from among this group in 1973 (the survivors).

Table 5. After postal survey (1973) - distribution by age and sex of

i. practice population(over 18 years),

ii. sample approached for the first time in 1973,

iii. respondents among this sample, and

iv. non respondents from among this sample.

Table 6. After interview survey (1973) - distribution by sex of

i. practice population over 65 years of age,

ii. the sample of persons aged over 65 years (approached for the first time in 1973), and

iii. the respondents.

Table 7. After interview survey (1973) - distribution by age of

i. mothers of sample of children under 5 years of age (approached for the first time in 1973), and

ii. mothers who responded.

Table 8. The distribution by doctor (with whom registered) of members of the various groups.

APPENDIX 3

TABLE 1

BEFORE POSTAL SURVEY (1970) - DISTRIBUTION BY AGE AND SEX OF

1. PRACTICE POPULATION (IN AGE RANGE 18-64 YEARS)[1]
2. SAMPLE APPROACHED
3. RESPONDENTS
4. NON RESPONDENTS (INCLUDING THOSE WHO COULD NOT BE CONTACTED)

Age group years	1. Practice pop (in age range 18-64 years)		2. Sample Approached		3. Respondents		4. Non respondents	
	Male %	Female %	Male %	Female %	Male %	Female %	Male %	Female %
18-24	16	18	17	18	15	16	21	23
25-44	48	47	44	36	38	34	53	40
45-59	28	26	31	33	38	35	20	29
60-64	9	9	8	13	9	15	6	9
Totals (100%)	2,870	3,077	255	291	159	198	96	93

[1]As at March 1974 (see page 54)

APPENDIX 3

TABLE 2

BEFORE INTERVIEW SURVEY (DR. C'S PATIENTS ONLY WERE APPROACHED)

DISTRIBUTION BY AGE AND SEX OF -

1. DR. C'S PATIENTS IN AGE RANGE 18-64 YEARS[1]

2. THE SAMPLE APPROACHED

3. THE RESPONDENTS

Age group years	1. Dr. C's patients aged 18-64 years		2. Sample approached		3. Respondents	
	Male %	Female %	Male %	Female %	Male %	Female %
18-24	12	14	13	15	9	15
25-44	53	55	49	48	49	47
45-59	27	24	31	26	32	27
60-64	8	8	8	11	9	11
Totals (100%)	975	1,071	106	110	86	88

[1] As at March 1974 (see page 54)

APPENDIX 3

TABLE 3

AFTER (FOLLOW UP) POSTAL SURVEY (1973) - DISTRIBUTION BY AGE AND SEX OF

1. THOSE WHO RESPONDED IN 1970 (IN TERMS OF AGES AS AT TIME OF 1973 SURVEY)
2. THE RESPONDENTS FROM AMONG THIS GROUP[1] IN 1973 (THE SURVIVORS) AND
3. THE NON RESPONDENTS FROM AMONG THIS GROUP IN 1973

Age group years	1. 1970 respondents in 1973		2. 1973 respondents (the survivors)		3. The 1973 non respondents (who responded in 1970)	
	Male %	Female %	Male %	Female %	Male %	Female %
18-24	7	6	9	6	5	6
25-44	38	33	33	30	46	39
45-59	37	38	41	39	31	36
60-64	12	13	10	14	15	12
65 and over	6	10	8	11	3	7
Totals (100%)	159	198	92	125	67	73

[1]Note that where a 1970 respondent was known to have died or otherwise left the practice by 1973, he/she was not, of course, sent a questionnaire.

APPENDIX 3

TABLE 4

AFTER (FOLLOW UP) INTERVIEW SURVEY (1973) - DISTRIBUTION BY AGE AND SEX OF

1. THOSE WHO RESPONDED IN 1970 (IN TERMS OF AGES AS AT TIME OF 1973 SURVEY)

2. THE RESPONDENTS FROM AMONG THIS GROUP[1] IN 1973 (THE SURVIVORS)

Age group years	1. 1970 Respondents In 1973		2. 1973 Respondents (The Survivors)	
	Male %	Female %	Male %	Female %
18-24	1	4	1	3
25-44	45	49	47	47
45-59	32	25	34	27
60-64	15	19	12	20
65 and over	7	3	6	3
Totals (100%)	86	88	65	63

[1]Note that where a 1970 respondent was definitely known by 1973 to have died or otherwise left the practice no attempt would of course be made to interview that person.

APPENDIX 3

TABLE 5

AFTER POSTAL SURVEY (1973) - DISTRIBUTION BY AGE AND SEX OF

1. PRACTICE POPULATION (OVER 18 YEARS)[1]

2. SAMPLE APPROACHED FOR THE FIRST TIME IN 1973

3. RESPONDENTS FROM AMONG THIS SAMPLE

4. NON RESPONDENTS FROM AMONG THIS SAMPLE

Age group years	1. Practice pop (over 18 years)		2. Sample Approached		3. Respondents		4. Non respondents	
	Male %	Female %	Male %	Female %	Male %	Female %	Male %	Female %
18-24	13	14	10	11	10	10	9	12
25-44	41	37	43	38	39	35	49	43
45-59	24	20	26	21	26	24	26	18
60-64	7	7	8	7	9	9	6	4
65 and over	15	21	14	23	17	22	10	23
Totals (100%)	3,388	3,884	541	658	337	409	204	249

[1]As at March 1974 (see page 54)

TABLE 6

APPENDIX 3

AFTER INTERVIEW SURVEY (1973) DISTRIBUTION BY SEX OF

1. THE PRACTICE POPULATION OVER 65 YEARS OF AGE

2. THE SAMPLE OF PERSONS AGED OVER 65 YEARS (APPROACHED FOR THE FIRST TIME IN 1973)

3. THE RESPONDENTS

Sex	1. Practice Population over 65 %	2. Sample Approached %	3. Respondents %
Male	39	43	41
Female	61	57	59
Totals (100%)	1325	101	79

Of the 22 persons who did not respond, 11 were men and 11 women. 8 of the 22 refused to be interviewed, 5 were too ill, or incapable of answering questions, 3 had died and 6 had moved away.

TABLE 7

AFTER INTERVIEW SURVEY (1973) DISTRIBUTION BY AGE OF

1. MOTHERS OF SAMPLE OF CHILDREN UNDER FIVE YEARS OF AGE (APPROACHED FOR THE FIRST TIME IN 1973)

2. THE MOTHERS WHO RESPONDED

Age group Years	1. The Mothers Approached %	2. Those who Answered %
Less than 25	19	19
Over 25	81	81
Totals (100%)	72	67

Note: If more than one child in the sample had the same mother her answers were only to be counted once (however, in the event this did not occur).

Of the non respondents, 1 was under 25 years of age (she had moved away) and 4 were over 25 years of age (3 had moved away and one could not be interviewed due to language difficulties).

DISTRIBUTION BY DOCTOR (WITH WHOM REGISTERED) OF MEMBERS OF VARIOUS GROUPS

	DOCTORS A %	B %	C %	Not known %	Totals (100%)
Population of practice as at 1.10.1970[1]	34	30	36	-	9090
Population of practice as at March 1974, aged 18-64 years[2]	33	32	35	-	5947
Before postal survey					
(a) sample approached	42	26	29	4	546
(b) respondents	42	25	31	2	357
(c) non-respondents	42	27	24	7	189
After postal survey					
1970 respondents who also replied in 1973	46	24	30	-	217
Population of practice as at 1.10.1973[1]	32	30	38	-	9174
Population of practice as at March 1974, aged over 18 years[2]	35	31	34	-	7272
After postal survey (new sample)					
(a) sample approached	36	33	30	-	1199
(b) respondents	36	32	32	-	746
(c) non-respondents	38	36	26	-	453
Population of practice over 65 years as at March 1974[2]	41	30	29	-	1325
After interview survey (new samples)					
(a) sample of over 65s approached	40	28	32	-	101
(b) respondents	42	27	32	-	79
(c) sample of mothers of children under five approached	24	27	49	-	72
(d) respondents	24	28	48	-	67
Population of practice under 5 years as at March 1974[2]	16	27	57	-	584

1 Based on Executive Council returns.

APPENDIX 4

Costs of the Experimental Surgery Premises

Lists of Clinical Equipment

COSTS OF THE EXPERIMENTAL SURGERY PREMISES

Capital Costs (as at November 1972)

The experimental building, including curtains, carpets and fixed furniture, light fittings and external works and architect's fees	£12,156
Equipment for 6 consultant rooms (including 1 swivel chair for the doctor (N.B. no desk) and two patients' chairs per room and the clinical equipment listed below)	£637
Equipment for central area (including clinical equipment listed below)	£339
Office equipment and furniture	£269
Equipment for waiting area (12 chairs)	£72
Total	£13,473

Running Costs for year ending 31st March 1974

General	
Rates	£432
Insurance	£70
Electricity (includes heating)	£466
Telephone and intercom rental	£62
Hand towels, dressing rolls for couches, etc.	£56
Laundry	£13
Staff Costs	
Salaries of 4 part-time nurses (16 hours per week each) and holiday relief nurse	£2,500
Employers national insurance contributions for the above	£224
Salary of cleaner	£202
Employer's national insurance contribution for cleaner	£4
Total running costs for year ending 31st March 1974	£4,029

Notes

1. The figures presented below relate, of course, to a particular practice situation and to particular times in the past (no adjustment has been made for inflation).

2. The running costs given are total costs, a proportion of which in the normal course would be reimbursed to the practice by the Department of Health and Social Security.

3. No sum is included for the salary costs of the practice secretary or for receptionists; since little or no extra work was involved for these persons as a result of two of the doctors of the practice transferring their surgery work from the main practice building to the experimental surgery premises.

EQUIPMENT FOR INDIVIDUAL CONSULTING ROOMS

½ Single blanket

1 pillow

2 pillow cases

1 small rug to cover patient

1 swivel armchair

2 patient chairs

1 pedal bin

Small drawer unit

Couch

Bathroom scales

Eye testing charts

Wall mounted
sphygmomanometer

Auriscope

Dressing scissors

Foetal stethoscope

Bandage scissors

P.V.TRAY

Cuscoes Vaginal Speculum
small

Cuscoes Vaginal Speculum
large

Sponge holding forceps

P.R. TRAY

Gabriels rectal speculae

GENERAL EXAMINATION TRAY

Patella hammer

Tuning fork

Torch

EQUIPMENT FOR NURSES AREA

1 - Ear syringe

1 - Ear Syringe tray

1 2 pint jug

1 - Ophthalmoscope

2 - Spare sets of 3 speculae

2 - Starling Ford stethoscopes

1 - 14" Sterilizer

2 - Eye spuds

1 - Urinometer

20 - Kidney dishes

8 - Gallipots

1 - Ishara's colour book

2 - Glass boxes with rubber lined lids

1 - Weighing scales with height attachment

1 - Baby scales

2 - Electronic thermometers

1 - Gross scalpel blades

1 - Pistol grip cautery handle

4 - Cautery points

1 - Transformer
(cautery only)

MINOR OPERATION TRAYS

1 - Scalpel handle

1 - Dissecting forceps $\frac{1}{2}$" teeth

1 - Dissecting forceps plain

1 - Stitch scissors

1 - Spencer wells artery forceps

1 - Mayo's needle holder

1 - Cheatle forceps

1 - Splinter forceps