

Middle Articles

GENERAL PRACTICE OBSERVED

Evaluation of Health Centre Community Nurse Team

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Summary: This report gives an account of the work during six months of a community nurse team attached to the doctors working from a new health centre. The team consisted of two community nurses, who had both health visiting and Queen's nursing qualifications, and a State-enrolled nurse. The community nurses, in addition to undertaking all the health visiting for the population at risk, assessed the social and nursing needs of patients at the request of the general practitioners and ensured that these needs were met. When necessary they undertook practical nursing tasks in the home and in the health centre, but most of the bedside nursing in the home was done by the State-enrolled nurse.

The needs of the population at risk were such that only one State-enrolled nurse could usefully be employed, and this proved to be a considerable disadvantage. Despite this, the experimental work pattern held advantages to patients, doctors, and nurses, and is potentially capable of providing a satisfying and economic division of responsibilities, with different tasks being carried out by the individual most appropriately qualified.

Introduction

Changes in the pattern of domiciliary nursing needs have led to reconsideration of the training of nursing staff and the organization of nursing services in the community (Hockey, 1966). Most patients with acute illnesses requiring nursing care beyond that which can be provided by the family are now admitted to hospital, with the result that much of the routine work remaining is inappropriate to the wide practical training and experience of the district nurse. At the same time the physically and socially handicapped among her patients have an increasing need for health education and social advice, but despite recent alterations the training of the district nurse does not always equip her to meet this need. These considerations, among others, have led to suggestions that a team approach would be more appropriate to present-day requirements, with the bulk of the home nursing being entrusted to State-enrolled nurses who could be assisted by nursing aides and bath attendants. The team could be directed and supervised by a highly qualified community nurse who would also be responsible for health visiting and would herself undertake nursing tasks beyond the skill of the State-enrolled nurse (Wenborn, 1966; Gray, 1967).

Reorganization of the nursing services along these lines should also be of help to the family doctor, who may lack the intimate knowledge of the local social services which is the stock-in-

trade of the health visitor (Jefferys, 1965; Anderson and Warren, 1967). He would also need to discuss his patients' social and nursing requirements with only one person, the community nurse, who would be able to ensure that all appropriate care was provided.

In the autumn of 1967 the Medical Officer of Health of Bristol (Dr. R. C. Wofinden), with the co-operation of the Chief Nursing Officer and the general practitioners, established an experimental community nurse team of three members at Stockwood, Bristol's third health centre. This serves a newly developed area of the city, and houses seven family doctors from three practices caring for about 7,500 patients. This report is based on the work of the team during the first six months of 1968.

The Team

Most of the people resident in the area are registered with one or other of the doctors practising from the health centre. Though the doctors have additional consulting-rooms elsewhere, the geography of the area is such that it is possible to define those of their patients who almost invariably look to the health centre for their medical and nursing care. The community nurse team assumed responsibility for the health visiting and domiciliary nursing needs of only those patients registered with the health centre doctors who live in the defined area. Apart from midwifery, the only exception to the team's total responsibility is that week-end domiciliary nursing is provided by other members of the city's nursing staff. This was felt to be unavoidable, because, as in most newly developed areas, the age distribution of the population is such that their domiciliary nursing needs are small and can be met by only one State-enrolled nurse, who cannot be expected to be available for seven days a week.

In Bristol, health centres and clinics are administered by senior members of the health visiting staff, who may also undertake a small case-load. At Stockwood the sister-in-charge of the health centre is also the leader of the community nurse team, and is thus a part-time administrator and a part-time community nurse. Both she and her deputy have health visiting and Queen's nursing qualifications, and in this report are referred to as community nurses. The third member of the team is the State-enrolled nurse.

The team leader is responsible for the supervision of the work of the other members of the team, ensuring that the various nursing tasks are carried out by the member most appropriately qualified. She commonly does this by making the initial visit, in response to a doctor's request for care, in which she assesses the patient's social and nursing needs and either delegates or herself undertakes whatever tasks are necessary to meet these needs. She also makes occasional supervisory

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visits to those receiving nursing care, undertakes about one-third of the health visiting responsibilities, and when necessary carries out nursing tasks in the health centre. Her deputy is responsible for the greater part of the health visiting and school nursing duties for the population at risk, and occasionally undertakes practical nursing tasks. The State-enrolled nurse does the bulk of the domiciliary nursing, and, when not engaged in this, works in the health centre by assisting in maternal and child welfare clinics and carrying out dressings, injections, and similar nursing tasks in the treatment room.

In addition to the team members, part-time State-registered nurses are employed in the health centre to staff the treatment room and to help as required in surgeries and clinics.

Results

The age distribution of the population at risk is shown in Table I, which also includes the estimated age distribution of the population of Bristol as a whole based on the sample census of 1966.

TABLE I.—Population at Risk at Stockwood on 31 March 1968, With the Percentage Age Distribution Compared with that of Bristol

Age in Years	Stockwood		Bristol (%)
	Total	%	
0-4	1,171	15.7	7.7
5-14	1,404	18.8	13.8
15-44	3,608	48.3	39.9
45-64	814	10.9	25.5
65 and over	457	6.1	13.1
Not known	19	0.3	
Total	7,473	100.1	100.0

TABLE II.—Nursing Services Received by the Population at Risk

	Stockwood		Bristol Rate per 100 Patients at Risk per Year
	Total in Six Months (January to June 1968)	Rate per 100 Patients at Risk per Year	
H.V. visits	705	120.2	297.5
Age 0-4	175	6.0	2.1
Age 5-64	179	78.4	3.2
All ages	1,059	28.4	25.1
D.N. visits, all ages	1,095	29.9	52.0
Treatment room attendances—all ages	1,673	44.9	—

H.V. = Health visiting. D.N. = District nursing.

TABLE III.—Analysis of Work Done by Members of Community Nurse Team During First Six Months of 1968

	Sister in Charge			2nd C.N.			S.E.N.		
	Total	Time		Total	Time		Total	Time	
		Hours	%		Hours	%		Hours	%
H.V. visits	394	154	18	665	228	30	—	—	—
D.N. visits	67	33	4	51	24	3	977	513	55
Patients seen in treatment room	91	27	3	42	13	2	250	126	14
Maternal and child welfare clinics, patient interviews	—	89	11	—	173	23	—	214	23
School nursing duties	—	—	—	—	60	8	—	—	—
Formal health education sessions	4	8	1	7	14	2	—	—	—
Administrative, clerical, and liaison work	—	535	63	—	239	32	—	76	8
Total time worked	—	846	100	—	751	100	—	929	100
Days worked	—	109	—	—	98	—	—	115	—

H.V. = Health visiting. D.N. = District nursing. C.N. = Community nurse. S.E.N. = State-enrolled nurse.

Table II shows the total health visiting and domiciliary nursing visits made during the first six months of 1968, and the visiting rates are compared with those for Bristol as a whole. The work of the individual members of the team is analysed

in Table III. Visits made by the community nurses to adults sometimes included both practical nursing and health counselling, and each visit was classified as either a health visiting or a district nursing visit according to its predominant purpose. The majority of assessment visits in which the community nurse called at the request of the family doctor to assess the patient's social and nursing needs were included in the health visiting category. Time spent travelling and in blank visits was included in the visiting time totals, but in recording the number and rates of health visitor visits no account was taken of blank visits, which in Stockwood amounted to 173 (14% of blank and effective visits combined).

The low rate of district nurse visiting in Stockwood compared with that in Bristol was expected because of the different age distribution of the two populations. In Stockwood the elderly were visited by the health visitors much more frequently, and pre-school children much less frequently, than in Bristol as a whole. Practical nursing tasks took up only 7% and 5% respectively of the time of the two community nurses. The demand for domiciliary nursing was sufficient to occupy the State-enrolled nurse for only a little over half her time, but she carried out 90% of the domiciliary nursing visits done by the team.

The sister-in-charge spent 63% of her total time on administrative work, which in this report includes, in addition to clerical work, time spent on telephoning and on discussions with family doctors and other professional colleagues. Without a complete work study it is impossible to say exactly how much of this work was concerned solely with health centre administration, and how much was part of her community nursing responsibilities. However, of this 63% it is likely that about 50% was taken up by health centre administration, and if this is so then the remaining 13% accounted for about a quarter of her community nursing time. The second community nurse, who was involved in health centre administration only in the absence of the sister-in-charge, spent just under a third of her time on clerical and liaison work.

Table IV shows how the work-load in the treatment room was divided between different members of the nursing staff. Over three-quarters of the patients attending were treated by one of the part-time State-registered nurses, who during the 26 weeks of the study were employed for a total of 269 sessions.

TABLE IV.—Division of Work in Treatment Room Between Different Members of Nursing Staff During First Six Months of 1968

Nurse Carrying Out Treatment	Total	%
Sessional State-registered nurse	1,321	77.6
Sister-in-charge (community nurse)	91	5.3
Deputy community nurse	42	2.5
State-enrolled nurse	250	14.7
Total attendances	1,704*	100.1

* The total differs slightly from that given in Table II because of 31 patients of doctors other than those practising from the health centre who received treatment.

Discussion

Stockwood proved far from an ideal area for an experiment of this kind because of the unusual age distribution of its population. The amount of domiciliary nursing required was so low that only one State-enrolled nurse could be usefully employed, with the result that in her absence her work had to be covered either by other members of the city's nursing staff or by the community nurses. Both these solutions were used, but neither was satisfactory. On the one hand, the principle of the team's total responsibility for the nursing needs of the population was breached, and on the other highly trained community nurses were at times obliged to undertake routine nursing tasks, which is a direct negation of the thinking behind the team approach. Despite this disadvantage, the experiment has provided interesting and useful experience.

Advantages

The pattern of working introduced at Stockwood carried many advantages for patients, doctors, and nurses; though not all these advantages followed directly on the adoption of the community nursing principle. Liaison between doctors and nurses improves with attachment of nursing staff or even with sharing of premises, and it is not always easy to assess the relative contribution to any particular benefit of these various factors.

The main advantage to the patient of community nursing is that he is more likely to receive a comprehensive range of services according to his need. While no detailed records were kept of the social and nursing needs of individual patients, the community nurses consider that the opportunity they had of making dual-purpose visits to assess and meet all such needs enabled a high standard of care to be given. In addition, the team approach facilitated communication between the members of the nursing staff, with the result that the State-enrolled nurse had frequent opportunities to discuss her patient's problems with the community nurses. In this way many needs were recognized and met.

The theoretical advantages of community nursing to the family doctors have been confirmed by this experiment. They were able to request the help of a community nurse with confidence in the knowledge that she would assess in their entirety the social and nursing needs of the patient. This proved a great saving of time and trouble without in any way reducing the standard of care provided. The community nurses also assumed some of the burden of repeat visiting, especially to elderly patients, with the result that the doctors were able to devote more time to those of their patients who required their particular skills.

Once the necessary psychological adjustment to combined working had been made the community nurses derived much satisfaction from the greater variety of their daily work, and from their ability to provide more complete and continuous care both in the health centre and in the home. They soon became familiar with all aspects of the general practitioner's work, and thus with the pattern of illness in the community, to a degree which is impossible for health visitors and district nurses even when attached to practices, and this enabled them effectively to combine preventive and curative nursing. The State-enrolled nurse, co-operating closely as she did with the community nurses, improved her knowledge of the functions and skills of health visitors, and had a new range of interests added to her work.

Patterns of Work

The leader of the team spent 7% of her total time on practical nursing tasks in the home and in the health centre. This figure does not perhaps seem very high, but it nevertheless represents 19% of that part of her time which was not devoted to administrative tasks. The second community nurse spent 5% of her total time, or 7% of her "non-administrative" time, on practical nursing tasks, which is probably a more acceptable proportion if skilled personnel are to be used to the best advantage. In different situations, however, the amount of practical nursing undertaken by community nurses will vary with the needs of the community, with the constitution of the nursing team, and not least with the individual inclinations of different doctors and nurses.

The disturbingly high proportion of time spent by skilled nursing staff on clerical and administrative tasks is a feature of many previous studies. In Stockwood, if the team leader is assumed to be a half-time community nurse, the two community nurses spent between a quarter and a third of their time on clerical and administrative work and in liaison with professional colleagues. Comparable figures for health visitors

in other surveys vary between 22% and 35% (Akester and MacPhail, 1963; Jefferys, 1965; Allen and King, 1968; Ambler *et al.*, 1968; Clow, 1968).

Consultation with colleagues cannot readily be delegated, but it should be possible for some clerical work to be undertaken by lay staff in order that the nurses' skills could be put to more efficient use. This criticism is even more pertinent when we consider that the team leader spent about half her time in administering the health centre. There are many advantages to placing clinics and health centres in the charge of experienced nurses rather than lay administrators, but while the health service is short of qualified staff of all descriptions there is in theory an excellent case for much of this work being undertaken by lay workers, if necessary in a subordinate position.

The health visiting pattern in Stockwood was very different from that in Bristol as a whole. The much greater frequency with which the elderly were visited can be accounted for in part by the initial assessment visits and in part by the realization by the State-enrolled nurse of patients' unsatisfied needs. The increase in visiting stemming from these two causes is thus a direct result of the adoption of the principles behind the community nurse team. However, a previous study in Bristol (Fletcher, 1967) has shown that attachment of a district nurse was followed by a marked increase in the number of patients from the practice who received domiciliary nursing care, and who would under the community nursing system usually receive initial assessment visits. Also, in other areas attachment of health visitors has been followed by some increase in the frequency with which those over 65 were visited (Graham, 1966; Allen and King, 1968). It is not possible from the records which were kept in the course of this experiment to estimate the relative importance of these factors, but the need of the elderly for the services of health visitors has long been recognized (Ministry of Health, 1956) and it seems entirely logical that a health visitor who is also capable of assessing nursing needs should be involved.

Possibilities for the Future

Clearly the constitution of any nursing team must reflect the needs of the population to be served. It should be possible to make a reasonably accurate previous assessment of those needs, but even so it is likely that there will be more than one way in which they could be met. At Stockwood it became apparent that it was desirable that a member of the team with at least State-registered nurse training should be available at most times for domiciliary nursing and supervision, and this implies that future teams should include as a minimum either two community nurses or one community nurse and a district-trained State-registered nurse. It was also thought desirable at Stockwood to have a State-registered nurse available for supervision of the work in the treatment room, where 15% of the patients attended on their own initiative without having been seen by a doctor. The correct placing of such patients requires a level of training and responsibility beyond that of State-enrolled nurses. In the interests of continuity nursing care in the health centre should ideally be provided by the community nurse team, and the problem of providing adequate skilled cover might be solved by increased flexibility of working, with the more highly trained nurses providing supervision both in the home and in the health centre.

The need for a minimum of highly trained nursing staff must not obscure the object of the community nursing approach, which is that less demanding work be done by those with lesser qualifications. Furthermore, the team must not be so large that frequent personal contact becomes difficult and the team leader becomes the usual channel of communication between doctor and nurse (Warin, 1968). This certainly did not happen with the Stockwood team of three, but it could easily do so with a large team and a rigid hierarchy. In practice any team's

constitution is likely to be to some extent a compromise, and it may not always be possible to adhere exactly to the principles behind the community nursing concept.

There is clearly ample scope for increasing the range of work of a community nurse team. Reference has already been made to the need of the elderly for health visiting services. Other patients who do not always receive adequate care are those who require admission to hospital. It is only too easy to lose touch with those who are temporarily under the care of a consultant, and the community nurse would be well placed to prevent this loss of contact. She could if necessary visit patients before and during admission to hospital as well as after discharge, and thus help to achieve continuity of care as well as ensuring that no needs were overlooked. It has also been shown that an experienced nurse is well able to undertake acute visiting (Smith and Mottram, 1967; Hasler *et al.*, 1968), and by doing this she can take a considerable load off the shoulders of the family doctor.

There can be little doubt that, in order to make efficient use of scarce professional resources and to maintain a comprehensive range of care, the medical and nursing professions will in the future need to work closely together to ensure that every individual makes the best use of his or her particular skills. The reorganization of nursing services along the lines we have described, but in situations which allow the employment of further ancillary nursing help, is potentially capable of fulfilling future needs in a way which is satisfactory to all concerned.

We would like to thank Dr. R. C. Wofinden for his guidance, encouragement, and advice throughout this study. We are grateful to all those of our colleagues who have advised us during the preparation of this report, and especially to Dr. P. B. Bailey for his help. The harmonious working of the team would not have been possible without the co-operation of the doctors and nurses concerned, and we are grateful to them all. Finally, we wish to thank Miss J. Rowlands, Mrs. M. Bidgood, and Mrs. M. B. Bartlett, for undertaking the extra work involved in recording the data on which this report depends.

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COMPUTERS IN MEDICINE

Policy on Computers

[FROM A SPECIAL CORRESPONDENT]

Two official statements on policy for computers in the Health Service were made at the conference of the British Computer Society, which was held in Birmingham from 5 to 11 January. Opening the conference, Mr. DAVID ENNALS, Minister of State for Health and Social Security, said that the need for computers in the National Health Service was to improve it in three main ways: firstly, to improve direct patient care; secondly, to increase clinical and administrative efficiency; and thirdly, to provide better facilities for management and research. His department had already approved several studies of how large computers might be used in the N.H.S. Two studies (at King's College and North Staffordshire hospitals) had reached the stage of firm orders for equipment. Among teaching hospitals those at Manchester, Birmingham, Cambridge, and Liverpool had studies approved or under way, as had the London, Charing Cross, and University College Hospitals. Three regional hospital boards (Oxford, South Western, and South West Metropolitan) were studying how hospital computers might also provide services in the community health field. The University of Essex and Guy's Hospital had joined in a study of how computing services might be provided and used in health centres and group practices.

Continuing, Mr. Ennals said that the Department had also authorized a number of smaller computers for pathology laboratories at the Hammersmith, University College, and Chelsea Hospitals, and at hospitals in Birmingham, Poole, and Warwick. There were similar provisions for the department

of clinical measurement at the Westminster Hospital, the radiotherapy unit at the Royal Marsden Hospital, and the department of neurophysiology at St. Bartholomew's Hospital; other hospitals had purchased computers from non-Exchequer funds.

Obtaining the Best Advice

To obtain the best advice it was proposed to set up a high-level advisory committee on the problems of computers in the National Health Service, which would be consulted whenever required by the Minister or his Under Secretary. The committee would also be able to make recommendations of its own. Nevertheless, there were certain problems on a national scale, such as the need for a national system of patient identification and the problems of confidentiality. If personal health details were stored in computers it would be necessary to build in maximal security and convince the medical profession and the lay public that such information was as confidential in a computer as it was on "bits of paper and cardboard."

Experiment and Development

In a further outline of the Department's policy and objectives Mr. D. A. GEDRYCH (Department of Health and Social Security) said that essentially these were to provide support for a number of experiments between now and 1972, and then to plan for a more extended development of computers in the Health Service over the following five years,

1972 to 1977. The present sites for computer projects had not been chosen by the Department, but it was capitalizing on experience and enthusiasm in several areas. If these projects proved successful it was planned to start similar ones, while some of the less promising projects would be shut down.

The present time scale in developing a computer project in a hospital appeared to be 12 months' preliminary study by a small group of about six persons, followed by detailed system study over 18 to 24 months by an expanded group. It was hoped that when model systems had been developed this time scale might be reduced. At the planning stage it was hoped to include people who were capable of measuring the effects of the computer on medical and nursing disciplines.

As far as funds for developing computers in hospital were concerned, there was more control than usual; capital had been earmarked for the purchase of appropriate computers and for the heavy costs of systems planning and programming, while the cost of personnel would be supported by the Department out of reserve funds. Nevertheless, the appropriate hospital would be expected to pay for some of the development costs, and later to take over the running costs. The Department's policy would be to evaluate the benefits and the full costs of computer development aiming to measure improvements in patient care, which were hard to assess, as well as the new costs from further developments arising from computer use. Cost-benefit studies would be a condition of support of computer projects.