

Middle Articles

GENERAL PRACTICE OBSERVED

Evaluation of Home Nurse Attachment in Bristol

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Summary: By the end of June 1969 home nurses in Bristol were attached to 18 general practices caring for about 137,000 patients, or about one-third of the city's population. Attachment was associated with an increase by about one-third in the number of patients referred by general practitioners for home nursing. Additional benefits derived from attachment during the nine months from January to September 1969 were 2,047 items of service performed by nurses in general practitioners' surgeries, 65 home visits to patients who were not receiving domiciliary nursing care, improved communications between general practitioners and nurses, and opportunities for both doctors and nurses to widen their fields of work. The travelling expenses paid to Bristol's nurses increased by 9.5%.

It is suggested that the benefits to patients, doctors, and nurses of attachment far outweigh the costs and that there is scope for extending the role of the attached nurse in the surgery and in home visiting.

Introduction

It is generally agreed that the attachment of home nurses is followed by increased job satisfaction and improved interprofessional communications, and often also by an increase in the number of cases referred by family doctors and in the nurses' travelling costs (Fletcher, 1967; Warin, 1968; Abel, 1969; McGregor, 1969). Nevertheless, few reports on the effects of attachment on the work of home nurses have recorded quantitative changes. An earlier study in Bristol (Fletcher, 1967) showed that an attached nurse worked 30% more hours and carried out 54% more visits than the average for the other full-time nurses working in the city, while her travelling costs were £115 per annum greater. The present report is an attempt to measure some of the changes associated with the attachment of nurses to a total of 59 doctors in 18 practices caring for about 137,000 patients.

Background and Method

All but two of the 18 attachments were made during the period from September 1968 to June 1969. Arrangements varied from full attachment in some cases to attachment plus liaison, as defined for health visitor attachment by Anderson and Draper (1967), in others. Where the practitioners so wished, the nurse saw and treated some patients on the practice premises, holding one or two "surgeries" a week by appointment.

Records of patients seen on the district included the total number of visits made and the length of time each patient

was under nursing care. In addition weekly records were kept of patients seen at the nurses' surgery sessions. The evaluation given below is derived from an analysis of these records and of completed questionnaires circulated to all doctors and State-registered nurses involved in the scheme.

Results

Use of Nurses by General Practitioners

The source of referral of discharged patients can be used as an indication of use of domiciliary nursing services by family doctors, because most patients referred by them are on the nurses' books for four weeks or less (Table I). From July to

TABLE I.—Number of Patients who had been Referred by General Practitioners and who were Discharged after Varying Periods of Care by Bristol's Home Nurses, July to September 1968 and July to September 1969

| Time on Books | July-Sept. 1968 | July-Sept. 1969 |
|----------------------|-----------------|-----------------|
| 1 to 6 days | 207 | 212 |
| 7 to 28 days | 206 | 221 |
| Over 28 days | 312 | 322 |
| Total | 725 | 755 |

September 1969 there were 30 more discharges of patients who had been referred by family doctors to all domiciliary nurses in Bristol than there were in the same period of 1968, but this overall figure conceals pronounced differences between the changes which took place in the numbers of discharged patients who had been referred by doctors with and without attached nurses (Table II). The total for doctors

TABLE II.—Number of Patients Referred by General Practitioners with and without Attached Nurses in 1969 who were Discharged during July to September 1968 and July to September 1969

| | July-Sept. 1968 | July-Sept. 1969 | Total |
|---|-----------------|-----------------|-------|
| Patients of G.P.s with attached nurses in 1969 | 226 | 300 | 526 |
| Patients of G.P.s without attached nurses in 1969 | 499 | 455 | 954 |
| Total | 725 | 755 | 1,480 |

$\chi^2 = 11.47$. $P < 0.001$.

without attached nurses in 1969 fell by about one-tenth, while for those with attached nurses there was a rise of nearly one-third. A change of this magnitude cannot be accounted for by changes in list sizes. Between September 1968 and September 1969 the total lists of doctors who in 1969 had attached nurses increased by only 0.76%.

There were nine practices in which nurses held enough surgery sessions during the first nine months of 1969 to warrant some appraisal of work patterns. Most of the tasks carried out came into the treatment category (Table III). Dressings provided a relatively small proportion of the treatments, while

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TABLE III.—Analysis of Tasks Carried Out by Attached Nurses in Surgery Sessions, January to September 1969

| | Practice No. | | | | | | | | | All Practices |
|----------------------|--------------|----------|----------|----------|----------|----------|---------|----------|---------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Immunizations (%) .. | 27 (7) | 158 (40) | 14 (7) | 44 (14) | 9 (3) | 0 | 18 (28) | 233 (71) | 19 (39) | 522 (26) |
| Tests (%) .. | 0 | 29 (7) | 0 | 0 | 17 (6) | 0 | 0 | 9 (3) | 11 (22) | 66 (3) |
| Treatments (%) .. | 354 (93) | 204 (52) | 178 (93) | 269 (86) | 260 (91) | 41 (100) | 47 (72) | 87 (26) | 19 (39) | 1,459 (71) |
| Total (100%) .. | 381 | 391 | 192 | 313 | 286 | 41 | 65 | 329 | 49 | 2,047 |

therapeutic injections and ear treatments (mainly syringing) were often undertaken. Only 3% of all the tasks carried out were tests, almost exclusively urine tests and venepuncture, and half the practices did not use their nurse in this way at all. In general terms the only noticeable departure from the traditional work of the district nurse in these surgery sessions was that she undertook immunization and ear syringing.

During the period from January to September 1969 nurses in nine practices were asked to carry out a total of 65 single visits for purposes other than the provision of nursing care, usually to observe the condition of the patient and to report back to the doctor.

Nurses' Work Patterns

Differences in the staffing ratios of State-registered to other nurses and the associated redistribution of work render it difficult to make valid comparisons between the work patterns of attached and unattached nurses. Nevertheless, this study produced no evidence of any pronounced difference between the numbers of visits per hour carried out by Bristol's nurses in the two periods from January to September 1968 and 1969 or between the rates at which attached and unattached nurses performed their visits in 1969.

Job Satisfaction

A questionnaire was distributed to all 78 doctors and State-registered nurses taking part in the attachment scheme at the beginning of 1970, and 68 (87%) were returned (Table IV).

TABLE IV.—Changes in Work Patterns Reported by Participants

| | Nurses | Doctors |
|---------------------------------|------------------|----------|
| No. of forms issued .. | 19 | 59 |
| No. of forms returned .. | 17 (89%) | 51 (86%) |
| Pressure of work { Greater .. | 12 | 3 |
| Less .. | 1 | 26 |
| No change .. | 3 | 19 |
| Qualitative changes reported .. | 13 | 35 |
| Patients' comments { Adverse .. | 1 | 0 |
| | Complimentary .. | 16 |

Though 24 doctors reported no change in the number of patients they saw, 26 reported a lessening of work pressure. Fifty-nine of the participants said that patients had passed comments on the effects of attachment, and in only one instance were these comments adverse. The qualitative changes reported in their work by doctors and nurses are shown in Table V. Both doctors and nurses were virtually unanimous in their general approval of the scheme and emphasized the improved service to patients which resulted.

Costs

With general salary awards, varying annual increments, and changes of staff during the periods under review it was considered too complex an operation to attempt to assess the variation in salary costs resulting from attachment of nurses. The total travelling expenses paid to all nurses in the two nine-month periods from January to September were £8,930 in 1968 and £9,782 in 1969, an increase of £852 (9.5%).

TABLE V.—Qualitative Changes in Work Patterns Reported by Participants

| | Tasks Performed | | | |
|--|--|-----------------|--------------------------------------|--|
| | Never Before | More Frequently | Less Frequently | |
| Collection and delivery of prescriptions Daily reporting of patients to G.P.s Visits to patients who have requested doctor to call Venepunctures Immunizations Smallpox revaccinations Allergy testing | Nurses Dressings Observation visits Involvement with social problems of patients Injections at surgery Removal of sutures Chaperoning during doctor's visits to patients Collection and delivery of prescriptions or dressings Changing pessaries Syringing ears Nursing care of acutely ill patients | | Baths General nursing care | |
| | Doctors Blood pressures Haemoglobin estimations Inspection of some chronic conditions (e.g., gravitational ulcers) that require variation of treatment Visits after hospital discharge Blood tests Listening to patients New calls to previously unrecognized problems Home management of acute illness | | | |
| | Skin grafting Routine haemoglobin estimations on all patients with pernicious anaemia Psychotherapy | | | Ear syringing Routine injections and immunizations Venepunctures Routine visits to elderly Follow-up visits Dressing wounds, varicose ulcers, etc. |

Discussion

Evaluation

The overall objectives of home nurse attachment are to improve domiciliary nursing care and to make efficient and effective use of available resources. Though the results of this study relate mainly to the use of resources it is possible to infer from them substantial benefit to the patient. Our results suggest that following attachment the number of patients referred by general practitioners for domiciliary nursing care increased by at least one-third. In addition, during the nine months of the study nurses performed 2,047 items of service in the surgeries and carried out a further 65 home visits to patients who were not receiving home nursing care. This extra work undertaken will have improved patient care, either by fulfilling previously unmet needs or by freeing the doctor from tasks which could appropriately be done by a nurse, thus enabling him to devote more time to his patients. Also better communication between doctors and nurses is likely to have contributed to an improved service to patients. The opinions of those involved in a programme are also relevant to evaluation. This study has confirmed the results previously reported—that virtually all doctors and nurses concerned approve of attachment. So far as we are aware no survey of patient opinion has yet been reported, but in Bristol there was only one report of adverse comment.

The team system of working, staff changes, the use of relief nurses, and the varying type and extent of attachments have made it impossible to give any reliable estimate of changes in salary costs consequent on attachment, though there has been no pronounced increase in the establishment of home nurses in Bristol. Nor can the observed increase in travelling costs necessarily be ascribed to the attachment of nurses, as the numbers of nurses with block and mileage allowances are continually changing. Nevertheless, even if the whole of the known increase in travelling costs, which represents about 1%

of the total cost of Bristol's Home Nursing Service, was a direct consequence of the attachment of home nurses to doctors serving about one-third of the population of the city, we believe that it is a small price to pay for the benefit received.

Future Developments

Whatever the outcome of the current discussions on the future structure of the National Health Service, more and more district nurses will be working closely with family doctors. It is to be hoped that the community health team concept will be developed, perhaps along the lines of that already tried out in Bristol (Dixon and Trounson, 1969); there will then be less need for strict delineation of work that may or may not be undertaken by an attached nurse. Thus seven out of 31 local authorities studied by Abel (1969) did not think it necessary to lay down rigid patterns of work for their attached nurses. Furthermore, now that the State-enrolled nurse is beginning to assume responsibility for some of the basic nursing procedures which have hitherto occupied so much of the time of the State-registered district nurse, it is perhaps opportune to widen the role of the district nurse in the field of home visiting, as successfully pioneered by those using privately-employed nurses (Smith and Mottram, 1967; Hasler *et al.*, 1968; Marsh, 1969).

We are grateful to Professor R. C. Wofinden for providing the opportunity for us to undertake this study and for his guidance and advice; to Mr. Brian Parker and Mr. George Birch for valuable assistance in collection of the data; and to the doctors and nurses involved in the attachment scheme whose willing co-operation has made this report possible.

Addendum

Dr. R. C. WOFINDEN, *Medical Officer of Health and Social Services, Bristol*, has written the following addendum.

Bristol has now experimented with, and so far as possible evaluated, various kinds of nurse attachment, but we are still uncertain of what is the most satisfactory pattern of nursing assistance. We have recently been recording some baseline data concerning relationships between general practitioners and health visitors, and we hope to go on to measure any changes which are associated with attachment. This next group of exercises may throw more light on the desirable pattern of relationships between general practitioners on the one hand and public health nurses, whether health visitors, home nurses, or community nurses, on the other.

One further point of interest emerges from this evaluation exercise. In Bristol, as elsewhere, several general medical practices employ their own practice nurse. As part of the Government's last pay award, practices employing a nurse are reimbursed to the extent of 70% of her salary. Clearly gen-

eral practitioners who have taken the initiative in this are anxious to give a better service to their patients and at the same time to reduce their own work load. Equally clearly they are at a financial disadvantage compared with those of their colleagues who enjoy, free of charge, the services of an attached local authority nurse if part of her duties are carried out at the practice premises, as is now happening in some of the practices in Bristol. Indeed, as mentioned above, some of these attached nurses are even carrying out vaccination and immunization procedures for which an additional payment to the doctor can be made by the Executive Council.

Furthermore, most general practitioners working in health centres are in a similar position to those of their colleagues who employ their own nurses, in that they have to contribute towards the cost of those nurses who are based at the centres and who work only on behalf of the practitioners. The situation may thus arise in which a general practitioner is provided without charge with the services of an attached nurse in his surgery premises, but on moving into a health centre he finds he has to contribute financially towards the provision of similar services.

Full attachment of nurses may thus be a disincentive to health centre practice, and an instance has already occurred in Bristol where a group practice, which had committed itself to work in a proposed health centre, withdrew shortly before building was due to start because during the waiting period a home nurse was attached to the group. Great hopes have been pinned on health centres as a means of improving the conditions and hence the quality of general practice, and it seems to us to be important that urgent steps be taken to remove this impediment to health centre development and at the same time to eliminate the financial advantage currently enjoyed by the doctor with an attached nurse working in his surgery over his colleague who employs his own nurse. This could be achieved by restricting attached nurses to work in the home or by charging general practitioners for work done in the surgery by their attached nurses, but we think that both these measures would be unsatisfactory and retrograde. It would be preferable to achieve the desired objective by pressing ahead with attachment schemes so that all general practitioners, whether working in health centres or in their own premises, may be provided with the services of an attached nurse on identical terms.

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ONE HUNDRED YEARS AGO

Notes from the British Medical Journal, 29 October 1870

ACCIDENTAL SELF-POISONING

THE *Pharmaceutical Journal* records the following case of accidental self-poisoning. It belongs to a melancholy class, only too numerous and painful, and in no way differs from a sadly familiar type.

"A widow lady named Elizabeth Simpkins, who resided with her brother-in-law at Crewe, has lately died under the following circumstances. It appeared that the deceased had been a sufferer from rheumatism, and that for the last seventeen years she had been in the habit of using an embrocation consisting of chloroform and aconite, prepared by Dr. Dawes of Longton. About half-past one on the morning in question, she awakened

her brother-in-law, and told him she had taken the wrong medicine. Medical men were sent for; but, on their arrival, life was extinct."

We refer to this case as a proof of the incumbent duty of the Pharmaceutical Society to fulfil the function assigned to it by a recent Act of the legislature, of framing regulations for the purpose of preventing such accidents, as far as mechanical precaution, added to proper care, can prevent them. We have little doubt that, when they have fulfilled this caution, practitioners will adopt the precautions approved in sending out medicines from their private surgeries.