Pilot project: the family practice nurse in a Newfoundland rural area

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Over the years, two basic patterns of the use of nurse practitioners have developed in this country. In one, the traditional outpost nurse has been placed in an isolated community where she provides the only medical services, often without immediate communications with a doctor, and is therefore guided and limited by her own training. In the other and more recent role, the urban nurse practitioner assists a physician in his routine office and community practice, thereby increasing both the quality and the efficiency of patient care.

This paper describes a pilot project to develop a framework, applicable to rural communities, which has the best features of both patterns. Our project was part of a larger program conducted by Memorial University of Newfoundland to develop the role of family practice nurses in both urban and rural practices. The Department of National Health and Welfare provided some support for the project.

Setting

The area chosen was that served by the Baie Verte Peninsula Health Centre on the northeast coast of Newfoundland. In this well-defined district, 12-000 people live in 20 coastal villages connected by unpaved roads, all within 65 km of the central town, Baie Verte. All health services, including public health and operation of a 40-bed hospital, are the responsibility of a community-based board. Medical services are provided by a group of salaried physicians who live and have their offices at the health centre.

The greatest weakness in the system appeared to be that all services were provided in the one location; few health services were available in the villages. It was impractical for the doctors to visit the villages more than occasionally. Their practice has included inpatient services (such as obstetrics, surgery and anesthesia) and ambulatory services emphasizing primary care for all 20 villages. This demanded fairly constant attendance by the doctors in the hospital. While the public health nurses visited the villages regularly, the size of their district has limited them to the traditional role — mainly immunizations, well-baby clinics and some home visits. The family practice nurse was seen primarily as a means of making health services more accessible to the people and providing a much broader range of medical care.

As this was a pilot project, no attempt was made to cover the whole medical district. The villages of Coachman's Cove and Fleur de Lys, about 32 km from Baie Verte, were chosen for this project because they each had a suitable population of approximately 1200 and their communities presented many health and social problems. The family practice nurse was to serve as the primary health care worker for these villages.

Duties of the family practice nurse were:

- To monitor treatment of persons with chronic conditions, adjusting their medications or referring to a physician as indicated.
- To assess patients presenting with medical problems, treating those within her competence and referring others.
- To assist the families in the care of the ill and elderly in their homes.
- To carry on the programs of immunization, well-baby clinics and school health.
- To promote health education within the community.

At the outset it was felt essential that the family practice nurse be an integral part of the health care team. To ensure this, it was arranged that she live at the base community and that she spend a significant part of her time working in the health centre directly with physicians. Due to the time required for travelling, and to promote the concept of comprehensive health care, it was decided she would be the only team member travelling regularly to the selected area and hence would replace the public health nurses in these villages.

Preparation

Residents in the villages were involved in the planning and were asked to provide facilities for the nurse. They were able to remodel an unused classroom into an efficient medical clinic, consisting of an office-consulting room, drug and supply room and an adequate waiting room. The approximate cost to the community was $7500. A local woman was hired part-time as office help and janitor.

A nurse who had for 3 years been working in the area as a public health nurse was chosen. She took a 9-month course offered by Memorial University which has been described elsewhere.

On return to the district she had 3 months for further training and to inaugurate the program before the experimental period started. It was also necessary that the staff — physicians, outpatient department nurses and ward nurses — understand the role of the family practice nurse and be willing to work with and assist her.

Operation

Two-fifths of our family practice nurse's time approximately is spent at the health centre and three-fifths in the community. At the health centre she spends 2 half-days weekly working in the outpatient clinic. Here, with one of the physicians, she sees patients whom she has referred in for more complete assessment. She also takes a turn 1 night each week and 1 weekend per month on emergency call with one of

the physicians. These periods serve primarily as a continuing education process. She regularly attends the medical staff teaching rounds.

Each day she sees patients in her village clinics. Other time is spent with school health programs, immunizations and housecalls. Her work involves a large amount of social work, counselling and other paramedical services. She provides the routine prenatal and postnatal care for her patients. She is with them during labour and delivery and provides good psychoprophylaxis, but the deliveries remain the responsibility of the physicians. Similarly, while she has no responsibility for hospitalized patients, she follows the progress of those from her district and is prepared to give them follow-up care on discharge. Technical procedures are limited to minor suturing and treatment of minor trauma. She also does her own basic laboratory work.

Prescribing

To carry out the program effectively, it has been necessary for the family practice nurse to have some prescribing privileges. She keeps in her clinic a small stock of drugs for immediate treatment, the patient obtaining the remainder of the needed supply from the pharmacy in Baie Verte. To control her prescribing, two lists of drugs were prepared by the medical staff. The first, which she is authorized to prescribe, consists of common drugs for symptomatic and short-term treatment. Included are analgesics, decongestants and the common antibiotics. The second list contains antihypertensives, digoxin and other long-term drugs which she may renew but not initiate. Some agencies have voiced concern about extension of prescribing privileges to a nurse practitioner; it was therefore necessary to provide prescription blanks signed by a physician and restricted to being filled at our local pharmacy. The pharmacist is authorized to fill these prescriptions only for the listed drugs.

As patients who are seen by the family practice nurse in the villages also frequently get medical care at the health centre, it was necessary to integrate the medical records. To accomplish this, notes on all patients seen in the villages are recorded in duplicate using forms with pressure-sensitive paper. One copy is returned to the health centre and filed with the patient's master chart.

An important part of the family practice nurse's work has been to expand public health services and health education in the community. Because she is carrying on immunizations and well-baby clinics, she has come to

know the people better and is aware of problems earlier. Health education has led to the formation of classes for adolescents, weight reduction groups and prenatal classes. The informal setting of these sessions right in the villages often results in better patient acceptance and more interest in preventive health care by the public.

Periodically, one of the staff physicians visits her in her clinic to assist her and learn more of her community's health programs. Medical students who rotate through the health centre are also exposed to this type of practice.

Research

The research component of the project is being supervised by Memorial University. The experimental group consists of all residents of the villages served by the family practice nurse. A control group consists of 1100 patients systematically selected from the rest of the district. The two groups are being examined for a baseline period of 1 year and for the experimental year to measure quantitatively the utilization, cost and quality of care.

Health service utilization is measured by tabulating the number of services of each type (housecall, clinic visit etc.) given to each group. Each service is costed and the quality of care is assessed by the use of indicator conditions. A number of medical conditions were selected and standards for adequate care set for each by an advisory group of Newfoundland family physicians not affiliated with the university. These conditions and standards were not known to any of the professionals giving care. At the end of each period the medical records were reviewed and assessed by nurse research assistants sent out by the university. Results of these studies will be published at a later date.

There was virtually no doubt members of the community would accept this method of providing care, as they were involved in planning and providing facilities. The affection they have developed for "their" nurse and the reliance they place on her are tremendous. They have confidence that she knows her limitations and will refer them on, if the problem is beyond her competence. Often they consult her first for any problem, even a crisis situation. They particularly appreciate that she is readily available for minor complaints, and that she saves them a great deal of travelling to the health centre.

The medical staff has found the family practice nurse very helpful, particularly in her intimate knowledge of the background of each patient from her villages. Her ready availability to patients, particularly those with psychiatric problems, is a big help. Since the start of the program there appear to have been fewer crises among these patients. The fact that she saves doctors many routine visits is important, but far more important in their view is the improvement in quality of care.

The public health nurses feel routine work is being well looked after in these villages. They are happy to be relieved of responsibility for this portion of the district so that they can do a better job for the remainder. The hospital nurses appreciate the information the family practice nurse can give them on the background of patients, particularly children. They also feel patients get better follow-up after discharge.

Social workers find her knowledge of the community valuable. As their staff and services are limited, the family practice nurse is filling a large gap here. Several times she has brought problems to their attention much earlier than would otherwise have been the case. She assists patients by interpreting welfare regulations and also helps provide social services to her district that were not readily available because of shortage of trained personnel.

This project, to date, has been amazingly free of problems. One possible problem is that the community will become too dependent on the family practice nurse, creating difficulties if the project has to be discontinued for any reason. A great deal depends on the ability and personality of the nurse. Problems could arise if the nurse did not accept her limitations or did not have good rapport with her patients.

Conclusions

The involvement of a nurse practitioner in this way appears to improve greatly the quality and availability of primary medical care provided residents of rural communities. It converts medical services which are often distant and impersonal into ones which are readily available and highly personalized. It also puts greater emphasis on preventive medicine. The acceptance by the community and other health professionals of this new type of worker has been very positive. It is at present our hope that more family practice nurse projects similar to this will be funded and established. Further work on this project will provide more objective data on the cost and quality of health care delivered in this way.

Bibliography

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The practice of medicine by nurses: an opinion

By Tom Wood, FRCP [C]

In the past 18 months I have been involved in the teaching and supervision of a training program to prepare nurses to practise medicine. This course, the northern nurses training program, has been taught at the University of Western Ontario for the last 4 years, and although it has produced a number of graduates and the implications of the course are far reaching, little has been said about it, and most people in the medical community are not aware of it.

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Many communities in the far Canadian North have never had regular medical care; because of the isolation and difficult conditions, few doctors have been induced to work there. In an attempt to provide resident care, the Department of National Health and Welfare in 1972 began small training programs in the faculties of nursing in six universities across Canada. These were the universities of Toronto, Western Ontario, Manitoba, Alberta, Sherbrooke, and McGill. McGill, Sherbrooke and Toronto have since discontinued their programs. The nurses are trained to work as doctor-substitutes, but in some medical and nursing circles this term is inflammatory and neither this nor the term nurse practitioner is used.

I have had close contact with the nurses who trained in the UWO program. Most have already had experience working in the north, and most have had training in public health. Half of them are university graduates. Most are mature, stable women in their late 20s or 30s and are independent people who have deliberately chosen a difficult job in an unusual setting. All the