A FAMILY NURSE PRACTITIONER PROGRAM FOR PRIMARY HEALTH CARE IN THE EASTERN CARIBBEAN

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In 1980 seven Commonwealth Caribbean governments initiated a program for training nurses to assume an expanded role in delivering primary health care. The account presented here describes the nature and early results of that endeavor.

Introduction

As it is known today, the "nurse practitioner" concept appears to have originated in the United States in 1965, at the University of Colorado, following a time when nurses were assigned to manage selected child health problems and proved able to perform such functions well (1). At that time the need to expand the role of nurses appeared to result from several related circumstances, namely:

- The nations of the world, including the industrialized nations, had a shortage of health personnel, especially physicians. This shortage produced a serious gap in health services for certain segments of the population.
- Essential health services in many areas were maldistributed—a problem which has not yet been completely resolved.
- For reasons of both geographic and political isolation, many people had (and still have) limited access to basic health services (2).
- Nurses were (and are) well-trained health professionals already providing essential services; so expanding their role meant making selected health care providers better equipped to deal effectively with a given situation (2).
- Nursing personnel were (and are) the most numerous single group of health personnel, often forming the backbone of family health services—particularly in developing countries (2).
- In most communities, nurses were (and are) performing the bulk of primary health care activities (2).
- In many countries, giving the nurse post-basic preparation for an expanded role tended to legitimize her right to take on many of the responsibilities she had already assumed, particularly in rural and isolated communities where nurses were "expected" to provide all health services—including "medical" services—when such services were not otherwise forthcoming (3).
- Because nurses often live in the communities they serve, they tend to be relatively available to individuals and families in those communities (4).

Today, programs for expanding the nurse's role exist in many parts of North America, Latin America, and Africa as well as the Caribbean. These programs, most of which are conducted at universities or other institutions of higher learning, vary greatly in terms of admissions requirements, length of study,
and scope—with awards for successful completion ranging from certificates to postgraduate degrees. Such programs may also be quite specialized, focusing upon pediatrics, women’s health, health in schools, geriatrics, mental health, or any number of other specialty areas.

In general, the course of study ranges from three to 18 months in length (the average length being 12 months) and includes both theory and practice. This study period is often followed by a designated internship phase, during which the candidate is expected to sharpen her expanded skills by working closely with an appropriate professional—either a highly skilled nurse practitioner or (in most cases) a physician, who is often referred to as a “medical preceptor.” After completing this guided internship phase, the candidate is usually certified by the responsible educational institution as being qualified to assume her expanded role.

A nurse having such an expanded role is commonly referred to as a “nurse practitioner” and her title, such as “family nurse practitioner,” often reflects her designated specialty. Or else, if her training has been more oriented to the medical model, she may be called a “physician’s associate” or “physician’s assistant” (such personnel, of course, are not necessarily nurses).

The common element in all of this is that nurses prepared for expanded roles assume responsibilities in areas traditionally associated with doctors. The nurse practitioner must therefore be prepared to accept responsibility for her actions—including, of course, accountability for those functions inherent in her new role.

The Program in the Commonwealth Caribbean

In 1977, the Conference of Health Ministers of the English-speaking Caribbean issued a declaration of regional health policy asserting that “Primary health care is an essential element in health policy.” The Conference also adopted “health for all in the Caribbean Community by the year 2000” as its goal and designated the primary health care approach as the strategy through which that goal would be achieved.

Even before 1977, however, special emphasis had been placed on the extension of health care coverage and on the need to expand maternal and child health care services in the Caribbean. As a result, a multidisciplinary group of health leaders had been formed in 1973 to define the educational requirements of nursing in the area. They recognized the need to strengthen maternal and child health services and to improve the quality of health care throughout the Caribbean, and concluded that advanced or post-basic educational preparation for nurses would be a major means of improving the situation.

In 1975, a special meeting of Caribbean Ministers of Health being held in Antigua stressed the importance of regional training and strongly urged that training programs be conducted in such a way as to benefit several political units simultaneously, rather than being restricted to single countries or territories. It was felt that such joint activities should be located in one of the smaller countries involved, since that would give prospective candidates an opportunity to develop skills and abilities germane to the resources and infrastructures of their own areas. The participating governments therefore accepted the invitation of the Government of St. Vincent and the Grenadines to situate the regional headquarters of what is now known as the Family Nurse Practitioner Program in that country. (The seven governments then participating in the program were those of Antigua/Barbuda, Dominica, Grenada, St. Kitts/Nevis, Montserrat, Saint Lucia, and St. Vincent and the Grenadines.)

In addition, the Government of Barbados participates in administrative and policy aspects of the program, although it has elected not to send candidates for training.
Among the tasks performed by family nurse practitioners are well-child examinations (left) and instruction of secondary school students in health matters (below).
The Commonwealth Caribbean had also been keenly aware of the need to develop a more creative strategy for obtaining the goal of "health for all by the year 2000." Within this context, the idea of expanding the roles of various types of health personnel gained advocates, particularly among nursing professionals; and it appeared that district nurse/midwives, who were already in charge of the many health centers throughout the Commonwealth Caribbean, would be the ideal people to receive post-basic training in the expanded role.

On the basis of these concepts, the family nurse practitioner program got underway on St. Vincent and the Grenadines in 1980. As of July 1983 a total of 33 family nurse practitioners had successfully completed the program's prescribed 10 months of post-basic training (Figure 1).

The aim of this regional program has been to prepare district nurse/midwives to function effectively in delivering primary health care services in an outpatient setting within the Caribbean Community. To help achieve that purpose, the program proceeded to develop a curriculum based upon the following principles:

- In providing health services, it is important to recognize that individuals are part of larger units—most notably their families and the communities being served.
- One must be continually aware that health is influenced by environmental, social, cultural, and economic factors.
- Health care can be either fragmented or comprehensive; it can be either episodic or long-term; and it can emphasize either prevention, curative work, or health promotion.
- Clinical expertise can be developed by providing direct patient care within the framework of community-oriented services.

With these principles in mind, the program adopted a life-cycle approach to curriculum development. This approach, which was consistent with other nursing programs in the area, meant essentially that the curriculum would use the progressive stages of life (birth, the neonatal period, infancy, childhood, adolescence, adulthood, and old age) as a basis for presenting clinical and theoretical learning activities within a primary health care framework.

Upon successful completion of the program, graduates are prepared to do the following:

1) To collect and interpret data that will provide a foundation for assessing the health status of individuals, families, and the community. This is accomplished by (a) taking complete health histories (medical, psychosocial, dental, and nutritional); (b) performing a comprehensive physical examination and recording appropriate information; (c) requesting, performing, and interpreting selected laboratory tests and other diagnostic procedures; and (d) detecting deviations from what is considered to be the norm.

2) To diagnose and manage selected health problems common to the Caribbean area according to mutually established medical guidelines and protocols.

3) To assist families and communities in identifying and planning for their own health needs.

4) To identify groups of individuals within the community who are at higher risk for particular health problems—by employing an epidemiologic approach to disease prevention and/or control, by making appropriate referrals, by collaborating with other members of the health team, and by making use of existing resources and appropriate technology.

5) To identify real or potential health care service problems and to participate, through investigations and team collaboration, in their resolution.

6) To assess and plan for their own continuing education needs as health professionals. And

7) To interpret their roles and functions as family nurse practitioners to other members of the health team and the community.

Program Content and Teaching Methods

The curriculum has been presented in modular form. Although most participants were unfamiliar with this type of approach to
Figure 1. A map showing the seven countries of the Commonwealth Caribbean that have sent district nurses to St. Vincent and the Grenadines for family nurse practitioner training. The numbers shown correspond to the numbers of family nurse practitioner trainees from each locale who had successfully completed their prescribed 10 months of post-basic training as of July 1983.
Home visits (left) are an essential part of the family nurse practitioner's job, especially since some clients are elderly or sick and cannot venture out. Below: a typical day in the field for family nurse practitioner students.
learning, most have found it helpful. Other program teaching methods include use of guides—physical examination and history forms—for assessing individual or family health and for developing community profiles; group discussions; presentation of case studies; faculty-student "precepting" (closely guided clinical experience); lectures; individually paced instruction packets; self-study sessions and library research; clinical observation; group and community health education teaching sessions; laboratory demonstrations; laboratory practice; and home visits.

Some of the major subjects dealt with by the curriculum are as follows:

- nursing issues, with special reference to the Caribbean;
- the structure and priorities of the health services of St. Vincent and the Grenadines;
- communication skills and interpersonal relationships;
- interviewing techniques and the principles of taking a health history;
- well-child care, growth and development, and immunizations;
- sick-child care and pediatrics;
- oral-dental problems and dental health assessments;
- laboratory data procedures and interpretation;
- geriatric assessments; characteristics and problems of the aged population;
- causes, prevention, treatment, and management of common health problems in the Caribbean;
- nutritional problems and recommendations for their control;
- disaster preparedness and emergency/relief care and treatment;
- health promotion and health care for the Caribbean family;
- pharmacology relating to health problems in the Caribbean;
- principles of epidemiology, research methodology, and statistics;
- maternity care, family planning, and gynecology;
- psychiatry and community mental health;
- community health in the context of primary health care;
- nursing management and administration in nursing services;
- concepts of change and role transition.

The curriculum contains a total of 932 hours. Approximately 40 per cent of these hours are devoted to classroom work and the remaining 60 per cent are spent in clinical settings. The clinical experiences are provided exclusively through supervised clinical practice in primary health care settings such as district health centers. For purposes of this clinical work, the students are divided up into groups of three to five and assigned to one of various nurse practitioner-educators. (Each health center is served by a district nurse/midwife and a community health aide, and is also visited about once a week by a district medical officer who is often responsible for several health districts.)

During the first trimester, this clinical training emphasizes skills relating to the taking of histories and assessing the physical condition of both children and adults. In the second trimester this emphasis shifts to treatment and management of health problems common in the Caribbean. Then, in the final trimester, the work focuses upon concepts in community health nursing and public health. During this latter period the students initiate and complete family health assessments and community profiles, carry out home visits, and make contact at the community level with both official and unofficial community leaders.

Students in the third trimester, while continuing to offer direct health services in their assigned district health centers under the guidance of nurse practitioner-educators, assess client problems through history-taking and physical examinations and conduct case management and follow-up activities guided by protocols. This final experience is similar, in terms of day-to-day decisions and responsibilities, to that which the new family nurse practitioner will find when she assumes her new role in her own country.

The Internship Phase

This phase, which lasts for six months, begins the day the newly trained family nurse
practitioner begins working in her own country. In essence it has the following three main purposes:

1) to facilitate the graduate's transition from her traditional role of a district nurse/midwife to that of a family nurse practitioner;

2) to enable the graduate to benefit from continuing instruction so that additional clinical skills are developed which relate to health problems peculiar to her own country;

3) to help the governments of each territory effectively integrate the family nurse practitioners into the health care system.

During this internship phase, each nurse practitioner works with a selected local physician who is willing to act as a clinical preceptor. This physician spends a designated amount of time in the clinical area with the family nurse practitioner each week. This close association gives the physician an opportunity to better understand the role of the family nurse practitioner, and at the same time helps the practitioner to acquire additional skills while receiving ongoing support.

**Evaluation and Faculty Followup**

Written evaluations are provided following each unit of instruction, together with a midterm and final examination. In addition, clinical evaluations of the students are made by a selected medical practitioner familiar with the program's content and objectives. These evaluations are included in a record of each student's overall theoretical and clinical performance during the trimester in question. For the student to pass, her clinical performance must be rated at least satisfactory and her cumulative average score on the written examinations must be at least 70 per cent.

Contact is maintained with the graduates after they return to their home countries. Among other things, a faculty member makes at least one visit during the internship period to observe whether the objectives for this period are being met and to assist the home government with its plans to accommodate the new practitioner. Later, some time after the internship terminates (some 10 to 12 months following graduation) another visit is made in order to observe the practitioner functioning at her permanently assigned post.

During the internship, evaluations and reports provided by both the graduate and her medical preceptor are sent periodically to the program's faculty, and in this way the internship period and the graduate's experience receive careful monitoring. The preceptors are also asked to make any comments that could prove helpful in the future training of family nurse practitioners.

**Government Action**

The Family Nurse Practitioner Program receives both technical advice and policy direction from the participating governments, each of which has developed a policy for the program and assigned a technical advisory committee member to it. This ongoing involvement of the governments is supported by technical advisory committee and policy committee meetings, with each committee convening once annually.

The governments also take a number of administrative measures designed to ensure that the communities served benefit from the newly trained family nurse practitioner's expanded skills. These measures include writing job descriptions, performing ongoing family nurse practitioner evaluations, providing for continuing education needs, and amending nursing ordinances and protocols so as to help legitimize the family nurse practitioner's expanded role. These measures are taken because the governments realize the need to accommodate the program's graduates and to integrate them successfully into their national health services.
Facility Composition and Graduate Experiences

When the first class of family nurse practitioners began its training in February 1980, nurse practitioner-educators were nonexistent in the Caribbean. So it is not surprising that virtually all the program’s faculty members came from abroad, or that the only Caribbean nurse on the faculty had received her family nurse practitioner training outside the area. The situation has changed since then, however, and at present three Caribbean nurse practitioners are on the faculty. One of these is a graduate of the program’s first family nurse practitioner course who has received additional training in education.

As previously mentioned, as of July 1983 the program had graduated 35 family nurse practitioners. Of these, only two have not been assigned to primary care settings in their home territories. In general, however, all the graduates have expressed the opinion that the process of reentering their home health systems with changed responsibilities and functions was not without incident. Specifically, interpreting their new nursing roles to their communities and to other health team members (especially physicians and community health nurses) proved a challenge. A number of colleagues tended to resist the change, mostly because they had not been adequately informed about the new nurse practitioner’s education, capacity, and designated role. The general level of acceptance tended to improve once the internship phase terminated, so that by now most of the program’s family nurse practitioners have become well-integrated into their countries’ health systems. However, it would appear that this initial opportunity to prove themselves in their new roles has made the practitioners’ real worth and contribution to the goals of primary health care more tangible.
Concluding Remarks

Family nurse practitioner training in the English-speaking Caribbean has had to incorporate a substantial amount of community health work. Not enough community health nurses exist at present to satisfy the direct health needs of the area's communities; and much of the community health nurse's time is spent on supervisory activities. Thus, more than any other nursing colleagues, community health nurses and family nurse practitioners are destined to share their knowledge and expertise for the benefit of the individuals, families, and communities they serve.

The family nurse practitioner's role is, or should be, mainly clinical in nature. (She is, of course, involved in treatment as well as in disease prevention and health promotion.) Indeed, perhaps the major distinguishing feature between the roles of the family nurse practitioner and community health nurse is that the nurse practitioner has been prepared in depth to legitimately perform certain medical functions. It is true that she is a nurse, retains her nursing role, is supervised by nursing professionals, and is answerable to nursing professionals. But it is also true that the medical duties she performs are of a type to be appropriately evaluated by advanced and experienced nurse practitioners or by physicians. This means that while the nurse practitioner is not a physician's assistant, she is a colleague who contributes expanded nursing knowledge and skills in collaboration with the physician; and she and the physician share the goal of bringing essential health services to the communities they serve.

According to Seivwright,

The nurse practitioner ... should be seen not as a replacement for or displacement of doctors or any other group(s) of health care providers, but as a complement to the cadre of health professionals possessing high-level clinical skills which are in critically short supply. The need for such a worker seems clear beyond question or debate (9).

At present the activities being performed by the program's graduates vary all the way from heading up model district health teams to coordinating school health programs. At the same time, however, it is clear that the participating governments are committed to the primary health care approach and accordingly have been attempting to reshape health services so that they will engage in more disease prevention and health promotion activities rather than remaining wedded primarily to the traditional curative approach.

In general, it has become evident that most health problems presented at the district level can be handled competently by the nursing profession. This is notably so in the Commonwealth Caribbean, where district nurses, besides being experienced registered nurses, are also nurse/midwives who have received at least one year of post-basic midwifery training. A survey carried out in one of the program's participating countries (Saint Lucia) in 1978-1979 compared the physician and the district nurse in terms of diagnostic abilities and therapeutic skills (or, in the case of district nurses without practitioner training, capacity to make appropriate referrals).

With respect to this latter survey, Owen (10) has demonstrated that a considerable amount of the work currently performed at the district medical officer's clinics on Saint Lucia could be performed competently by a district nurse with no nurse practitioner training, and that strict demarcation of areas of responsibility and referral procedures should improve the quality of district health services. The same author has also recommended that the district nurses receive training as nurse practitioners because this would improve Saint Lucia's primary health care services.

All this brings up the matter of whether the services performed by family nurse practitioners are acceptable to those served. Both tradition and culture have dictated that a patient who is not feeling well should visit the clinic—particularly at those times when the doctor is present. On the other hand, it is also true that the concepts of self-help, community partici-
 sublicion, and health promotion, while they may be relatively new to many health care providers, are concepts that governed the behavior of individuals, families, and communities long before they became associated with primary health care.

Furthermore, the communities to be served by the program's graduates have received considerable advance preparation. As previously mentioned, each participating government has developed a nurse practitioner policy and has appointed a member of the program's technical advisory board. Through these board members, other individuals and the communities to be served have been made aware of the family nurse practitioner's special skills and knowledge, being informed and brought into the picture long before the practitioner's ten-month training was completed. Therefore, it is not surprising that communities to which the family nurse practitioners were assigned had virtually no difficulty making use of their expertise; or that (particularly since her services are not exclusively curative) the practitioner's colleagues generally came to accept her as an integral member of the primary health care team. In this vein, it is worth noting that besides seeing clients with specific health problems, the typical nurse practitioner's schedule also includes school health work, home visits, community talks, and epidemiologic studies. And it is also noteworthy that the small number of personnel still harboring doubts about this relatively recent addition to the nursing ranks is experiencing a gradual decline.

This last is fortunate, because health manpower has a great deal to do with determining the effectiveness of primary health care. That is, having the correct mix of different categories of health workers—and having these workers available—is a major prerequisite to providing adequate health services coverage (11); and lack of adequate coverage diminishes the overall effectiveness of primary health care services.

In recent years the Commonwealth Caribbean has given priority to educating, training, and retaining health personnel—especially those involved in delivering primary health care. That is the aim the family nurse practitioner program was designed to serve; and it is clear that since its establishment this program has come to play a key part in achieving that important purpose.

SUMMARY

In 1980, under the sponsorship of seven Commonwealth Caribbean governments, a program to train family nurse practitioners was initiated on St. Vincent and the Grenadines. Trainees from Antigua/Barbuda, Dominica, Grenada, St. Kitts/Nevis, Montserrat, Saint Lucia, and St. Vincent and the Grenadines were admitted to the program; these trainees were already district nurse/midwives in their home countries. The program's aim was to provide a mixture of classroom and clinical experience that would prepare the trainees for assuming an expanded role in the delivery of primary health care—a role including certain types of work traditionally performed by physicians. In all, the program provided 10 months of training on St. Vincent and the Grenadines followed by a six-month internship period in the trainee's home country.

As of July 1983, a total of 35 students had successfully completed the prescribed 10 months of training, and all but two had been assigned to primary care settings in their home countries. Most of these graduates found that the job of interpreting their new roles to their communities and other health team members proved a challenge. However, the general level of their acceptance tended to improve once the internship phase terminated, so that by now a majority of the new family nurse practitioners have been well integrated into their countries' health systems. Indeed, it seems clear that the family nurse practitioner training program, designed to help with the improvement of primary health care services in the Commonwealth Caribbean, has come to play a key role in achieving that important undertaking.
REFERENCES


TETANUS IN A PATIENT REPORTING PRIOR VACCINATION

In the summer of 1982 a man 51 years old residing in Ottawa, Canada, was knocked down by a cyclist and suffered facial abrasions that required debridement. Because he stated that he had had a tetanus booster three years before, a fact that was later confirmed, no booster was given at the time of his injury.

Five days after this incident, the man began having difficulty speaking. He was seen by a physician the following evening who noted trismus as well as left seventh nerve palsy and a diminished gag reflex. The patient was transferred to the intensive care unit of a teaching hospital with a diagnosis of tetanus. Opisthotonos was noted at this time. Shortly after his admission he required muscle relaxation and was placed in a respirator.

The man's wound was reexplored and necrotic bone fragments were identified and removed. Clostridium tetani was cultured from these. The patient was treated with intravenous penicillin G and with daily doses of tetanus immune globulin, both locally and systemically. Unfortunately, he developed renal and respiratory complications requiring intensive management, followed by septicemia and shock that were unresponsive to treatment. He died 17 days after the original injury.

It is not clear whether the patient had received a complete primary immunization series, although he was in the British Air Force just after World War II, when tetanus immunization was routinely given.

This case points out the need to delve deeply into an immunization history to ensure that the individual involved has received the required doses of primary immunization. Maintenance of complete immunization records for adults as well as children would overcome the difficulties encountered as a result of unknown or inaccurate details of immunization status.