TEACHING PRIMARY HEALTH NURSING IN THE UNIVERSITY OF NEW BRUNSWICK SCREENING CLINIC

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According to the World Health Organization (1978), primary health care is:

> Essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. . . . Primary Health Care addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly. (p. 34)

Baccalaureate nursing students must be prepared to assume changing roles in primary health care (Boudreau, 1972; New Brunswick Association of Registered Nurses, 1974). While primary health care is not a new area of responsibility for the community nurse, today's nursing students need better preparation to function on a first contact basis in an emerging health care system. The potential contribution of the nursing profession to the control of health care costs is obvious. Much nursing activity in primary health care should occur in the preventive realm with families who are seeking early assessment and referral. A baccalaureate nursing curriculum, which incorporates the above philosophy, provides an opportunity for faculty and students to experiment with new primary health nursing roles.

Curriculum Development

Since the University of New Brunswick (UNB) baccalaureate nursing program was instituted, clinical practice in home visiting has been considered an essential component. The challenge of planning and facilitating health-related programs for consumer groups was added, for junior and senior students, in the mid-1970s. To provide additional clinical exposure, student observation and participation in various community nursing agencies has been included.

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A full curriculum revision at UNB began in 1972 and the first class entered the new system in September, 1976 (Pepler, 1977). During this time a faculty sub-committee was formed to investigate the feasibility of utilizing a proposed "clinic" as a third-year clinical experience. The clinic, it was thought, could be associated with a twelve-credit-hour course entitled "Primary Health Nursing", which was to be offered in September, 1978. It would augment the students' experiences with families, groups and agencies. The university calendar description (1978) reads:

> This course concentrates on the provision of primary health care to individuals of all ages, to families, and to groups whose needs may lie at any point along a health-illness continuum. The focus is on the teaching and counselling roles and on the assessment, screening and decision-making skills used in various ambulatory care settings. . . . (pp. 416-417).

Clinic Development

The nursing literature about those years is replete with references to the expanding role of the nurse and nursing's potential contributions in primary care (Boudreau, 1972; Gardner & Fiske, 1981; Kinlein, 1977; World Health Organization [WHO], 1974).

The WHO Expert Committee (1974) commented:

> Developing curricula in which basic learning occurs in a practical setting is another test of faculty ingenuity. The broad base of primary health care is the area in which most effort will be required. The development of community practice sites, the adaptation of content and educational methods to a wide variety of persons to be trained as primary health workers, and the construction of a programme that provides the scope and quality of learning experiences desired all demand keen imagination and innovation. (p. 24)

Subcommittee members were anxious to demonstrate innovative planning through a sequence of self-development, clinical practice, teaching and research. To determine the possible extent of assistance and cooperation with the clinic by local health professionals, the Department of Health, physicians and optometrists, and relevant voluntary agencies, such as the New Brunswick Kidney Foundation, the New Brunswick Heart Foundation and the Canadian National Institute for the Blind, were contacted. Discussions were also initiated with university administration.

A clinic philosophy and program goals (with accompanying educational and operational objectives) were drafted and presented to the Nursing Faculty Council for approval in December, 1977. From the feedback received, it was evident that the start-up and continuing costs of an on-site clinic would pose a significant hurdle. The faculty and university were accustomed to using off-campus clinical sites where the cooperating agencies absorbed many of the costs of student practice. Consequently funding proposals were submitted to various external agencies and the university administration. In the process the clinic became more clearly delineated.

Rationale and objectives

In 1977 twelve hundred faculty and staff at UNB had no preventive or other health services available to them on campus. Concerns had been voiced by the Personnel Office to a university employee assistance (EAP) committee with regard to the current employee morbidity statistics. A nursing faculty member sat on that particular committee and, along with the clinic subcommittee, initiated a limited community assessment. It appeared that interest in personal health and stress-related conditions was high among employees on campus. It was also noted that previous clinical contacts between nursing students and university staff in home visits and groups had resulted in mutually positive outcomes. The students had been able to gain acceptance as "helpers" in those relationships. There appeared, therefore, to be justification for an "employee health centre" staffed by student primary health nurses.

The following broad objectives were formulated in 1977.

1. (To) provide an innovative clinical area where nursing students, under faculty direction, can develop skills in screening, health teaching and counselling.
2. (To) maintain and improve the health of university employees through direct (preventive) nursing care and referral to other health workers.
3. (To) study the impact of nursing care on the health of target groups through formal investigations.

For this employee group the clinic subcommittee members envisaged a number of services: blood pressure; visual and auditory screening; health history-taking; health assessments and referrals; individual counselling to complement currently prescribed medical treatments; and group counselling for clients with common problems (e.g. hypertension, diabetes and obesity).

Employees of the university were the first target group to be assessed but local pre-schoolers soon became a second focus. An emphasis on dealing with young families in the clinic was consistent with the Primary Health

Nursing course and with the third year objectives. Students in community nursing had been providing prenatal and parenting classes for young families, as well as first aid and child development classes for daycare workers. At that time, school nursing and screening services were being provided by the Department of Health nurses but there were no local nursing or other community programs for early identification of sensory disorders or developmental lags in pre-schoolers. A learning centre was in existence for pupils of the local school district. After discussion and literature review, three- to six-year-old children in our community were targeted for nursing services and the establishment of a "developmental and sensory screening service" was proposed.

Clinic implementation

Funding was received from the Maritime Provinces Higher Education Commission in Summer, 1978. A small four-room suite in the nursing building became the UNB Screening Clinic. Some of the necessary planning was delegated to the first students during four-day rotations that fall. At that time, both basic and post-R.N. students were registered in some nursing courses within the curriculum. The post-R.N. students' working experience helped to stabilize the clinic during this planning phase.

There were three objectives of the clinic for the first UNB Screening Clinic rotations.

1. To engage third year basic and post-R.N. students in actual community health planning, (i.e. the creation of their own clinics).
2. To learn and demonstrate specific screening skills useful to primary health nurses.
3. To offer a preventive health service to selected target groups, (i.e. university faculty/staff and local pre-schoolers).

In the Fall, 1978, students, in serial groups of six and with faculty direction and support, continued the review of literature, the assessment of possible target groups, the search for screening equipment and resource materials for client teaching and the planning of publicity. They reviewed blood pressure techniques and fitness testing and were taught vision and hearing screening procedures. As well, using numerous sample charts and their knowledge of pertinent history, they devised the recording forms for the first adult clinics.

Development of the screening protocols for the UNB Screening Clinic was undertaken with the advice of local resource persons and agencies. For example, the Canadian Red Cross had a useful manual which gave detailed directions for setting up fitness appraisal clinics. The capabilities of pre-

schoolers, the projected skill level of the students and the reputed reliability and validity of the screening tests were important considerations. The Screening Clinic rotation allowed the students to improve their problem-solving skills. Problems, such as how to retain the attention of a four-year-old, how to set up the screening environment, or what order of screening tests to use, arose from the discussions and practice sessions.

By late 1978, vision, hearing and hypertension screening protocols were ready for further testing, and in order to put them into practice along with pre-arranged referral channels, the first "real" clinics were advertised.

In January, 1979, all administrators and department heads at UNB received announcements of the first adult hypertension clinics that explained the screening and health counselling service, asked them to inform their staffs and asked them to encourage attendance. As a result of this and of efforts during the preceding term, two hundred employees appeared at the three scheduled day-long clinics. A number of health-related concerns such as weight problems, smoking and inactivity, were discussed. These concerns were noted and incorporated into the on-going target group assessment. Referrals to family doctors, involving mostly re-tests of elevated blood pressures and medication problems, were well received by clients and professionals.

Contact between a faculty member and a parent cooperative nursery school yielded the first pre-school clients. Parental consents were obtained. In that winter term (January-April, 1979) vision and hearing screenings were provided for approximately 40 three- to six-year-old children. A few referrals to ophthalmologists, optometrists, family doctors and audiologists were necessary.

The weighted value of the four-day Screening Clinic component in Primary Health Nursing, N3160, a year-long course, was only 10% for students in 1978-79. Overall, the clinical grade amounted to 50% of the course total.

Current Clinic Services

The UNB Screening Clinic has maintained its original objective of providing an employee health service. This objective is presently fulfilled primarily by the senior students. In Fall, 1979, fourth year students began to provide comprehensive adult health assessments in their clinical rotation, while third year continued with monthly hypertension clinics. The latter service was opened to the general public and attracted many seniors as regular attendees. Parking facilities on campus became a problem and, as such, adult clinics then began to be held off campus, once per rotation, and

client numbers were maintained. This was important because student numbers were also rising. To become better known off campus, the Screening Clinic is now regularly held at two unchanging central locations.

At present adult protocol includes a health interview, height, weight, and blood pressure testing, a medication review and health counselling. Currently, adult clinics attract 60-80 clients on a given day. These clinics operate on a drop-in basis. Local media keep the public informed.

Pre-school services for three- to six-year-olds now include the Denver Developmental Screening Test (DDST), height, weight, blood pressure, hearing, speech and vision screenings. Only the DDST is performed for children from birth to three years. The screening tests, in conjunction with health history, health teaching and parent counselling, provide a comprehensive preventive service.

Students are assigned to the rotation in groups of 10 to 12. The Screening Clinic can accommodate up to 30 children per clinic day. Requests for pre-school screening at local kindergartens and day care centres are accepted, if adequate facilities can be located, and if faculty, students and proper equipment are available. The settings provide realism, planning opportunities and practice in improvisation for students.

Referrals form a vital link from any primary health service to on-going professional health care. Whenever necessary, adult clients are referred to their family doctors, other professionals or community agencies. In normal circumstances the referral policy is to inform the clients, give the clients a written referral, and advise them to contact their doctors independently.

For pre-schoolers, full clinic results are sent, in writing to the referral service in order to provide a picture of overall development. It may refer directly to the ear-nose-throat specialist or the ophthalmologist, for example. Written feedback, routinely requested from referral services, is carefully noted and filed. The strength of all protocols is measured by the reported accuracy of referrals. Any feedback regarding referrals is shared with the student and supervising faculty members who attempt to keep in contact with the ENT specialists, opthalmologists, optometrists, audiologists, speech pathologists, and physicians to whom referrals go, to keep the communication channels open and to learn of changes in their fields that may have screening implications.

Teaching Primary Health Nursing Skills

Coincident with the development of the services of the UNB Screening Clinic, the faculty was also formulating educational goals and strategies

(Flynn, 1984). It was important to integrate the Screening Clinic objectives more closely with the overall third year clinical objectives. However, because of newness and uniqueness of the setting and the tasks involved, specific, separate objectives seemed necessary. A few of the earliest objectives for student learning were:

1. to plan, implement and evaluate a small clinic or clinics as part of a team;
2. to administer the Fit-Kit (CHFT), interpreting findings and counselling;
3. to interpret the findings of vision screening tests and discuss the need for referral or retesting; and
4. to demonstrate proper administration and explanation of hearing screening tests with adults and children.

Specific objectives were invaluable, as well, in the orientation of new faculty members. In 1979 a second full-time community faculty member for the third year program was hired and a third joined the team in 1980. Only one of the part-time faculty members has remained. Faculty members became proficient in a particular area of screening and are not easily replaced when they leave. Orientation time is high in order to ensure that the standards of the clinic are maintained.

Screening Clinic services and, indirectly, expectations for student performance, have been reviewed. Currently all students come to Screening Clinic in groups of 10-12 as a regular eight-day rotation in the third year program. Table 1 outlines the activities. Pre-school screening skills are demonstrated; students practise and then return the demonstration. Each teaching day (Day l, 2 & 6) is followed by independent practice. By the end of Day 5 students are expected to perform all pre-school procedures competently and to participate fully with faculty in the interpretation of screening results as well as in writing of referrals. They are expected to do some planned teaching, to counsel as opportunities present, and to collaborate in a professional, confident manner with clients and faculty. History, observations and rationale are discussed thoroughly before decisions are made. Feedback to parents is then the responsibility of the students.

Faculty attempt to arrange for each student to screen two or three children per pre-school clinic day. Feedback from faculty is given in both verbal and written form. Post-conferences are held to share learnings, provide re-direction, and boost morale. At these conferences student suggestions help solve current problems such as late cancellation of appointments, or safety for children in the waiting area. They are expected to be aware of overall clinic organization and communicate any difficulties to ensure smooth operation.

Table 1

Screening Clinic Rotation Third Year

Times		Activities	Staffing (10-12 students)
Day 1 (Tues.) 8:30 - 4:30		Introduction to Screening Clinic. - philosophy, objectives, expectations, tour.	Faculty A
		Denver Developmental Screening Test. - demonstration, discussion and practice.	Faculty A
		Hearing and speech screening - lecture, discussion, demonstration and practice.	Faculty B
Interim		- independent practice.	
Day 2 (Thurs.) 8:30 - 4:30		Vision screening. - lecture, discussion, demonstration and practice.	Faculty C
Interim		- independent practice.	
Day 3 (Tues.) 8:30 - 4:30	*	Pre-school clinic. - on-site and/or day care setting.	Several faculty (as needed)
Day 4 (Thurs.) 3:30 - 4:30		Pre-school clinic.	Several faculty (With a short counselling practice session on day 4 or 5
Day 5 (Tues.) 8:30 - 4:30		Pre-school clinic.	Several faculty
Day 6 (Thurs.)		Adult screening. - review of protocols, lifestyle counselling, student presentations, demonstration and practice of techniques and roles.	Faculty D, E
Interim		- Independent practice.	
Day 7 (Tues.) 8:30 - 5:30	*	Adult clinic. - seniors' centre or church hall.	2-3 faculty (as needed)
Day 8 (Thurs.) 8:30 - 5:00	*	Adult Clinic. - occupational health, government offices or shopping mall	2-3 faculty (as needed)

* Several post-conferences are included

Students state that screening in primary health nursing is an exciting new role. Some also state that they feel pressured to perform well. Because the Screening Clinic provides a public service and makes professional referrals, careful direct supervision is provided by faculty for the initial screenings and charts are thoroughly reviewed. These close supervision efforts provoke anxiety in students. Working with the same faculty member on several days reduces this anxiety, but can, in turn, cause scheduling problems.

In 1985-86, for the first time, all students attended a half-day counselling practice session. Here they discussed situations that they had encountered or anticipated in Screening Clinic. Taking the roles of client and nurse, they used Gazda, Walters and Childers's (1975) framework with such varied components as empathy, respect, confronting or immediacy, to improve counselling skills. Videotaping and playback increased self-awareness.

The counselling innovation within the rotation illustrates the way in which the Screening Clinic has merged its objectives with the third year curriculum. The opportunities for health counselling practice, family visiting, group work and work in all other clinical settings are being well used. The danger of focusing too much on new technical skills in the Screening Clinic, to the detriment of the teaching and counselling roles, has been confronted with success. A balanced approach is important to maximize student learning at the third year level.

Day 6, outlined in Table 1, consists of a review of the adult clinic protocol, followed by student presentations on selected adult health topics and a review of blood pressure techniques and fitness testing. Presentation topics range from pathophysiology of hypertension to life-style counselling issues such as fitness and smoking. Hypothetical client situations lead to useful discussion. The discussion builds on previous knowledge and clinical experiences and is directed at primary care needs and primary health nursing roles.

On Days 7 & 8 adult clinics are held: one for senior citizens, the other for health workers in shopping malls, government offices or other occupational settings. Faculty anticipate a minimum of 5-6 clients per student, per day. The open set-up of the clinic enables faculty to observe from a short distance, and this allows students to function more independently. Students perform basic health teaching regarding nutrition, hypertension, lifestyle and medication. They report findings and referrals to faculty verbally and by charting. If possible, faculty accompany each student during a couple of interviews to assess the use of screening procedures, as well as the depth, accuracy and appropriateness of nursing assessment, teaching and counselling.

Screening Clinic now constitutes fifty percent of a third year six-credit-hour course. The clinical objectives have changed substantially since the clinic began in 1978. In 1986-87, for the first time, the Screening Clinic will use evaluation objectives identical to those for all third year clinical courses. Faculty are planning a ten-day experience (i.e. two extra days) to help students achieve a greater degree of confidence and competence in pre-school screening. They will also experiment with formal group health teaching sessions at adult clinics, in lieu of a student presentation to peers. A longer-range plan involves videotaping the teaching presentations that are usually given live on Days 1 & 2. The latter plan requires funding.

Change seems to be the only constant factor in the UNB Screening Clinic. Ideas received from regular post-conferences, feedback from faculty and periodic student and consumer surveys have all helped in the evolution of educational and service objectives that are in pace with the Faculty's overall resources and growth.

Discussion

To an onlooker the UNB Screening Clinic may seem to have evolved without direction, but, in fact, the changing needs of the local community, the expertise brought by faculty members, the tremendous capability and adaptability of the students and the expanding enrolment have been the major influences on development.

Benefits for faculty

For a nursing faculty, having an independent facility for student clinical practice is an attractive possibility. In the case under discussion it allows great flexibility to experiment with primary health nursing roles. Faculty face a new challenge every day! They develop expertise in a given area of screening; they participate in current program planning and ongoing evaluation. All carry a heavy workload and experience pressures of high student-to-faculty ratios, many clients, much evaluation writing and a high amount of student contact time. However, the UNB Screening Clinic is becoming better known and recently faculty have been asked to give vision and developmental screening workshops for Public Health Nurses in the Province. The Clinic has encouraged sabbatical projects (Wiggins, 1982) and some graduate-level course work of part-time faculty.

Benefits for students

Students benefit by learning specific skills for their future practice. They work to achieve the third year curriculum goals; they experience teamwork

through clinic planning and referrals; and they learn the importance of emphasizing family-centred practice in primary care.

Benefits for clients

Clients seek and find health-related information with regard to self-care. Nursing referrals are made and some concerns are allayed. Social interactions occur. Newcomers to our city often make their initial contact with the local health system at the Screening Clinic. Returning clients take pride in the evidence of health maintenance that their "yellow cards" represent.

During eight years of operation the UNB Screening Clinic has established itself as a respected primary care facility and clinical resource in the city and local area. However, there have been many obstacles. Faculty turnover, and scarcity of space, time and money have all been dealt with.

Unfortunately however, as the Screening Clinic became accepted by faculty, students and the community as a viable clinical field and health resource, the clinical teachers who were directly involved adjusted their working priorities from those that were originally defined. In view of scarce resources and various uncertainties, they reverted to the more comfortable roles of teachers, and formal research efforts were deferred. The faculty workloads increased and plans for a Clinic Coordinator and secretarial assistance have not as yet, been realized. Faculty members have been obliged to direct day-to-day clinic operation. When these problems are overcome and a more stable clinic structure is attained, the original third clinic objective, related to formal research, must re-emerge.

Our recent experiences in the Screening Clinic suggest many relevant research questions. The first priority, an evaluation study of clinic outcomes, was initiated in the Fall, 1986. Another proposal, now at the draft stage, will compare the predictive strength of the Denver Developmental Screening Test with that of a more recently developed assessment tool, the Diagnostic Inventory for Screening Children (Amdur & Mainland, 1985). Middle ear problems in children and appropriate nursing intervention interest another faculty member. The University of New Brunswick's unique pre-school vision protocol for nurse screening will be tested further and documented in the literature. Research to demonstrate levels of client satisfaction with primary health care by nursing students and faculty could augment the primary health literature and may suggest nursing roles with regard to the Canada Health Act. As nursing faculty members change their own objectives, demanding increased time for research, the Screening Clinic will be able to achieve its three goals: education, community service and research.

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RÉSUMÉ

Enseignement des soins infirmiers de base de première ligne aux consultations externes de dépistage de l'Université du Nouveau Brunswick

Les consultations externes de dépistage de l'Université du Nouveau Brunswick constituent un milieu clinique innovateur où les étudiants de sciences infirmières se préparent à dispenser des soins d'hygiène communautaire. L'auteur décrit l'évolution des consultations externes, et notamment certains des défis que les professeurs ont dû relever à l'étape de la planification et de la mise en oeuvre. Les services actuellement offerts comprennent le dépistage, l'éducation et le counselling en matière d'hygiène, et s'adressent aux adultes et aux enfants d'âge pré-scolaire. Les objectifs des consultations externes, la participation des étudiants et des professeurs ainsi que les méthodes d'enseignement sont également décrits. Les consultations externes de dépistage de l'Université du Nouveau Brunswick jouent un rôle double dans l'éducation et la présentation des services communautaires. Elles servent également de point central pour la recherche réalisée par les professeurs.