Essays of an Information Scientist, Vol:4, p.441-446, 1979-80 Current Contents, #14, p.5-10, April 7, 1980

Current Comments

Can the New Health Practitioners Reduce Medical Costs? Part 2. Nurse Practitioners and Nurse-Midwives

Number 14 April 7, 1980

In the first part of this essay,[1] I discussed two recently developed categories of health care personnel—the physician assistant (PA) and the emergency medical technician (EMT). These new professions were created to extend the services of physicians not only in the hospital and office, but also in medical emergencies. Fortunately, the increased use of PAs and EMTs has lowered medical costs generally and improved health care in previously underserved areas.

The nursing profession has also responded to the need for additional medical services by expanding the role of the registered nurse. The nurse practitioner (NP), the most recently expanded nursing role, performs many medical tasks. And, like the PA, NPs often work closely with doctors. A variation on an ancient theme is the nurse-midwife. These registered nurses, as their name implies, are specially trained to care for pregnant women.

Although there is little difference in the medical tasks PAs and NPs are trained to perform,[2] state and federal laws generally permit NPs to practice more independently. In addition, NPs are more involved in screening patients and in counseling and educating them about preventive medicine, rather than treatment.

Due to the origins of these professions, NPs are usually women with a nursing background while PAs are predominantly men, many of whom have a military background. As with the PA, most NPs are employed in primary health care. These are medical services that involve the initial screening and treatment of patients, particularly in general, family, and pediatric practice. Incidentally, NPs should not be confused with PNs—practical nurses who do not have the training of a registered nurse (RN).

The first nurse practitioner program in the US was developed at the University of Colorado School of Nursing in 1965 to fill a need for pediatric health care in rural areas of the state.[3] Many NPs are continuing to enter the pediatric field, although they are also well represented in such specialties as geriatrics, family practice, school, community, and maternity care.

Several educational routes are available to the nurse, or student, who wishes to become an NP. Registered nurses can enroll in either a four- to 12-month continuing education program leading to a certificate or a two-year masters degree program that emphasizes the practitioner aspects of nursing.[4] Sonoma State College, Rohnert Park, California, and Metropolitan State College, Denver, Colorado, offer baccalaureate nursing programs which prepare students to assume roles as NPs upon graduation.[5] Instead of receiving a degree or certificate as a general NP, students graduate with specialty degrees in such areas as pediatric or geriatric nursing. Consequently, the training programs are

highly specialized, focusing on the diseases and problems of a special group of patients. Most one-year certificate programs consist of five months of classroom instruction followed by seven months of clinical training under the close supervision of a physician.

The more than 15,000 nurses in the US who have become NPs through certificate or masters degree programs had registered nursing degrees—which take two to four years—and prior experience before enrolling in an NP training program.[6] Thus, they have had three to six years of academic training.

NPs must be certified in a number of states in order to practice. Their main certification body, the American Nurses' Association (ANA), currently administers separate exams for adult, family, gerontological, pediatric, and school nurse practitioners. The Nurses' Association of the American College of Obstetricians and Gynecologists and the National Association of Pediatric Nurse Associates and Practitioners also offer certification exams, according to Charles W. Fanning, ANA registrar of certification.[7]

State and federal laws have been revised in response to this extended nursing role. Since 1971, 38 states have amended nurse practice acts to permit medically trained nurses to diagnose illness, prescribe certain drugs, and perform other medical tasks previously prohibited.[4] Although it is not common, some NPs have gone into private practice, particularly in rural areas. This was encouraged by the Rural Health Clinic Services Act (PL 95-210) which permits clinics not employing full-time physicians to be reimbursed through Medicare and Medicaid for services rendered by NPs and PAs.[8] This act, by requiring that the clinic be under the general or consultative direction of a physician, paved the way for health care to reach patients who could not travel to see a doctor.[8,9]

In Canada, NPs are providing medical care in the northern provinces where communities are small and widely dispersed. Unlike the US, where the roles of the NP, nurse-midwife, and PA are specifically defined, Canada's nurse practitioners fill all of these functions. They are trained to screen and refer patients, counsel patients on their health, manage healthy women throughout the maternity cycle, supervise the care of healthy children and older people, and monitor patients with long-term health problems. These NPs are in radio contact with a base hospital and receive regular visits from physicians.[10]

Rhodesia's (soon to be called Zimbabwe) advanced clinical nurse (ACN) program is similar to Canada's in that it was developed to provide health care to medically underserved areas. These ACNs are nurses with general and midwifery qualifications who are trained to assist a physician in his medical duties and to staff rural hospitals, which are visited by physicians on a regular basis.[11]

NPs in the US turn to the *Nurse Practitioner Journal* for academic, clinical, and general news on their field. This magazine was started by NPs as a forum in which to air their views and consolidate technical information. It is published by Cynthia Leitch (who teaches in the University of Washington's nurse practitioner program), under the corporate name, Health Sciences Media and Research Services, Inc., 3845 42nd Avenue, NE, Seattle, WA 98105.

News items and research findings affecting NPs can also be found in nursing journals, including the *American Journal of Nursing* and *Nursing Outlook*. In addition, a number of medical journals, including the *American Journal of Public Health* and *Medical Care*, publish research studies on NPs and offer suggestions for working with these professionals. As with the PA articles appearing in medical journals, these articles

are generally supportive of health practitioners and provide valuable information for the physician and NP.

The other outgrowth of the nursing profession, the nurse-midwife, combines the technical expertise of the highly trained nurse with the supportive role of the "granny" midwife. Although traditional midwives still assist at a large percentage of the world's births, there is currently an international trend toward in-depth training of nurses in obstetrics and upgrading the quality of the traditional midwife. For example, in the USSR and China women and men attending special three-year schools for middle-level health practitioners are prepared to manage normal, healthy, expectant mothers, attend at births—particularly in rural areas—and counsel patients on family planning.[12,13] In Western Malaysia, trained nurse-midwives are working with indigenous midwives and instructing them in simple hygiene techniques, in recognizing signals indicating the need for a physician, and in family planning.[12] Most of the babies in Norway, the Netherlands, and Sweden, where neonatal mortality rates are among the lowest in the world, are delivered by nurse-midwives.[14]

There are approximately 2,000 nurse-midwives in the US.[15] Compare this to the more than 70,000 in China[16] and more than 17,000 in the UK.[17] Although few in number, certified nurse-midwives in this country are respected members of gynecological/obstetrical teams. Like their counterparts throughout the world, they specialize in the medical care of normal, healthy, expectant women. However, unlike midwives in many parts of Europe, they generally are not licensed as private practitioners.[18]

Typically, when a pregnant woman is found to be "medically and obstetrically normal,"[17] the nurse-midwife takes over patient management functions, administering periodic checkups, counseling on nutrition, advising on what to expect as labor approaches, managing labor and delivery, and following up with examinations after birth. Nurse-midwives also provide family planning counseling and routine periodic health screening for women.

Teresa Marsico, head of the midwifery division of the New Jersey Medical School, Newark, NJ, describes the more personal aspects of the job in *Intellect*: "We counsel, we soothe her fears, and we help deal with problems of motherhood. If possible, we bring other members of her family into the experience to create as home-like and comfortable an atmosphere as possible."[17]

Nurse-midwives receive their training either as part of a masters degree program in a maternity-related field, or through a nine- to 12-month certificate program. They must have registered nursing degrees and at least one year of experience in labor and delivery. As students they take a core curriculum that includes history taking, physical and pelvic assessment, family planning gynecology, neonatology, parent education, and professional aspects of nurse-midwifery. By graduation, the students have completed between 20 and 40 supervised deliveries.

These training programs must be approved by the American College of Nurse-Midwives (ACNM), which also administers the certification exam. This exam has been given since 1970 and is now required for licensure in most states, according to Nancy McKenzie, membership and testing coordinator for the ACNM.[15]

As with NPs, nurse-midwives in the US are generally regulated under state nurse practice acts. These laws, rather than specifically defining the role of these nurses, provide for expanded nursing duties. Although most nurse-midwives work in hospitals, many are now finding employment with private practices. This has been facilitated by

the availability of nurse-midwife malpractice insurance and the direct reimbursement of nurse-midwives through insurance claims.[15]

Even though the American College of Obstetricians and Gynecologists formally recognized the profession in 1971, nurse-midwives are still resisted by some obstetricians. Peggy Emrey, nurse-midwifery consultant to the California Department of Health, quoted in *Nation*, attributes this to "some insecurity and professional jealousy, and some ignorance too. Many doctors have no conception of what nurse-midwives can do."[19] This resistance has also been attributed to nurse-midwives' greater receptivity to prepared childbirth, home birth, and other birth alternatives that permit the patient to play a more active role in the delivery process.[20] (p. 267-96) In addition, the birth rate in the US is decreasing at the same time the number of nurse-midwives and obstetricians is increasing.[16]

Despite this opposition, nurse-midwives, like PAs and NPs, are freeing doctors to attend to more complex problems. Simply put, "For every midwife taking over the routine of a normal pregnancy, there's a doctor freed to attend to more dangerously ill patients."[17]

The nurse-midwifery community publishes its news and research in the *Journal of Nurse-Midwifery*, which is published by the American College of Nurse-Midwives, 1012 14th Street, NW, Suite 801, Washington, DC 20005. Among the topics discussed in this journal are legislation affecting the profession, malpractice insurance, third-party payment systems, the history of midwifery, and nurse-midwives in other countries.

A number of studies have shown that NPs and nurse-midwives are fulfilling their originally intended role of improving health care in medically underserved areas.[17,21] For example, a nurse-midwifery program in Madera County, California, reduced the infant mortality rate in this low income, rural area from 23.9 deaths per 1,000 births to 10.1 in 1966. Premature deliveries also dropped, from 11 percent to 6.4 percent of all births.[22]

Studies have shown that nurse-midwives are highly acceptable to pregnant women, who are less hesitant about calling a nurse-midwife (rather than an obstetrician) about minor questions.[14] Obstetricians bothered by calls from their patients at all hours of the night should consider the findings of obstetricians at a Georgia hospital that hired two nurse-midwives: "An aggravation chart would show that our sleeping pattern is disturbed (by telephone questions) only about 20 percent as compared to a previous 50 percent incidence."[14]

As with nurse-midwives, researchers found patients were pleased with the treatment they received from NPs, particularly in terms of the reduced waiting time and additional counseling provided by these practitioners.[23] A comparative study of patient satisfaction with physicians and NPs revealed, "The nurse practitioners received significantly more favorable evaluations (.01 level) than the physicians on eight items of a 12-item patient satisfaction scale. Patients seen by nurse practitioners had significantly less waiting time and more new health problems detected than those seen by physicians."[23]

Problems must still be solved before these expanded roles can be fully integrated into the American health care system. Not surprisingly, most of these are related to the relatively recent introduction of these professions. Many state laws governing NPs and nurse-midwives are deliberately vague to allow for flexibility and encourage innovation. In

practice, however, this often limits the roles of these nurses because physicians, administrators, and nurses are uncertain about how these laws define the physicians' and nurses' duties.[24] Additionally, as with the PA, nurses working in areas not covered by the Rural Health Clinic Services Act cannot be reimbursed through insurance claims so that physicians are uncertain about billing patients for these nurses' services.[24]

The US government, like other federal governments throughout the world, is highly supportive of steps being taken by the nursing profession to increase its capabilities. A source of friction among nurses, but an attraction to the federal government, is the fact that services by nurses, who earn a national average of $13,000 a year, are less expensive than those provided by doctors, who earn an average of $65,000. As a result, the US Department of Health, Education and Welfare in 1979 provided $13 million of funding to 102 of the 200 nurse practitioner programs in the country.[4]

The health practitioners I've discussed in this and my previous essay are found throughout the world. Their training and practice, of course, vary with the needs of the countries in which they work. The US and other developed countries are fortunate that emphasis can be placed on providing highly technical health care to formerly underserved areas, and on training such professionals as EMTs and PAs to extend a physician's services.

Western nations including the Netherlands, the Federal Republic of Germany, Norway, Denmark, the UK, and the US can afford to train secretaries in medical terminology and medical systems administration so that physicians and medical institutions will have highly trained secretarial assistance.[12] In underdeveloped countries, however, the size, standard of living and isolation of rural populations, and the paucity of physicians make highly trained health workers a luxury. Complicating this problem is the tendency of Third World physicians, like their colleagues in the West, to prefer urban practices and, in what is called the "brain drain," to leave their countries for more lucrative practices in western nations.[10] As a result, a greater emphasis is placed in these countries on providing indigenous workers with as much medical training as is economically possible.[10] The agricultural barefoot doctors, industrial worker doctors, and neighborhood Red Guard workers of China,[13] and the village medical helpers of Tanzania,[10] are members of this minimally trained, grass roots health care system. In Mexico, as in many other countries, these workers are chosen by local community leaders or committees and must be able to both interpret community needs and understand modern medicine.[10]

Physicians and medical policymakers of several nations are meeting through the World Health Organization to share information about alternative forms of health care.[10] Much of their attention has focused on medical assistants, *feldshers*, PAs, and other "middle level" practitioners.[10] The high cost of educating physicians and their tendency to avoid rural practices indicates these medical assistants are the wave of the future. Their ability to provide low cost, quality health care and their willingness to work in rural areas offer a great deal of promise toward combating disease in underdeveloped countries and in less affluent and isolated areas of western nations.

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My thanks to Joan Lipinsky Cochran and Pat Heller for their help in the preparation of this essay.

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