

Chapter Six

Innovative Roles

Arguably one of the most vital changes of the period, the introduction of the advanced practice movement into the repertoire of the Army Nurse Corps also was one of its most significant challenges. The Army Nurse Corps conceived its Contemporary Practice Program (ANCCPP) as the 1970s began in fiscal year (FY) 1971 and implemented it on 1 January 1972.¹ Several circumstances fostered its inception. Some in the Army Medical Department (AMEDD) viewed it as an answer to the need for physician extenders that was predicted with a future physician shortage.² As one source noted, nurses would “extend the arms of the physician,” meaning that they would assume some of the physician’s responsibilities. The Surgeon General noted that in the future, given the physician shortage crisis, Medical Corps officers would be called on to assume more demanding professional functions such as “open heart surgery, physiological monitoring, vascular surgery, nuclear application[s] in medicine, organ transplantation and highly complex diagnostic and treatment procedures.” Army nurses then were among those identified to fill the void created by new demands on Medical Corps officers and assume many of the duties physicians could no longer manage, particularly those in outpatient settings in the fixed facilities.³

Others viewed ANCCPP as a vehicle “to promote maximum utilization of Army Nurse Corps officers in the delivery of comprehensive health care to the military community.”⁴ In that same vein, General Lillian Dunlap affirmed that the program “was established to add a new dimension to patient care in the AMEDD” and “to increase career satisfaction” among Army nurses.⁵

The professional nursing community saw various rationales for the evolution of the national nurse practitioner (NP) movement. Nurse historian Julie Fairman believed that the advanced practice role resulted from a number of “factors such as changes in nursing and medical education and practice, federal entitlement policies, and economics.” She theorized that the role evolved “through a process of negotiation rather than delegation.”⁶ Loretta C. Ford, the founder of the movement,

explained that “societal needs and nursing’s potential led to this development.”⁷⁷ She pointed out that the “dearth of physician manpower *provided the opportunity* to test new roles; it was not, however the *raison d’être* for the initiation of the expanded role.”⁷⁸ The profession envisioned the advanced practice role as “a nursing model” whose goals were health promotion, monitoring of normal health and development, and disease and disability prevention for communities, especially those underserved by health care providers.⁹ Ford and her colleague, Henry Silver, conceptualized and implemented the first such expanded role curriculum, a pediatric nurse practitioner program, at the University of Colorado in Denver in 1965.¹⁰ Just a few years later, the Army Nurse Corps adopted the concept and adapted it to their needs. Initially, the Corps sent Lieutenant Colonels Ruth Kulvi and Mary Condit to the Pediatric Associate Course at the University of Colorado and, in 1968, Kulvi successfully tested the role at Walter Reed General Hospital. There she mainly focused on concerns that arose within the three pediatric units, the newborn nursery, and the surgical recovery unit. She also facilitated the care of pediatric patients in various specialty clinic settings and collaborated in case management with Army health nurses and social workers. Kulvi’s “resounding success” in the trial run in the military setting opened the door for nurses to function in the advanced practice role in the AMEDD and served as the basis for the conceptualization of the Army Nurse Clinician Program.¹¹

Originally, the plan called for educating 225 nurse clinicians (as nurse practitioners were originally called in the Army Nurse Corps) each year for five years.¹² The plan specified three pathways to “properly qualify nurses as expeditiously as possible through civilian educational programs,” by revamping and augmenting existing AMEDD courses and by instituting new training programs internally within the confines of the AMEDD.¹³

At the outset of planning for ANCCPP in 1971, Army Nurse Corps leaders envisaged the need for increased authorizations and fiscal resources to support graduate education in the Long Term Civilian Training program. Planners proposed these academic expenditures “to prepare officers for increased faculty requirements, for planning and teaching duties, and for the significantly increased clinical knowledge” necessary for nurses to undertake “the more complex delegated physician tasks.”¹⁴ From FY 1972 to FY 1974, 25, 31, and 36 Army nurses, respectively, attended civilian academic institutions for graduate degrees.¹⁵

Army nurse educators also expanded five existing courses to incorporate advanced practice skills and knowledge including the intensive care, psychiatric-mental health, Army community health, operating room, and anesthesia nursing courses. By the end of FY 1974, the Army Nurse Corps hoped to produce 130 graduates of these courses.¹⁶

In FY 1972, the Army Nurse Corps introduced several new courses including the adult ambulatory care, pediatrics, and obstetrics-gynecology clinician courses. The adult ambulatory course convened its first class at Martin Army Hospital, Fort Benning, Georgia, and a few months later at a second location at Silas B. Hays Army Hospital, Fort Ord, California. The first pediatric program met at Fitzsimons

General Hospital, Aurora, Colorado. A short while later, Madigan Army Medical Center, Fort Lewis, Washington, also offered an advanced practice course in pediatrics. The obstetrics-gynecology course took place at Womack Army Hospital, Fort Bragg, North Carolina, and subsequently at William Beaumont Army Medical Center, Fort Bliss, Texas. Additionally, the U.S. Army–University of Kentucky Nurse Midwifery Program began educating nurse midwives in September 1972 at Ireland Army Hospital, Fort Knox, Kentucky. Planners hoped that these 102 nurse clinicians would graduate from these courses. These 102 students coupled with the 130 graduates of already existing courses would—it was expected—produce the intended 225 clinicians. Ultimately however, because of strength reductions levied on the Corps by the Department of the Army, only 50 percent of the original projected goal of 225 new nurse clinicians was met.¹⁷

The Navy and the Air Force were dealing with comparable issues in this decade, to wit, the need to supplement physicians' efforts in the primary care arena and expand the professional nurse's role.¹⁸ Responding to these realities, the Air Force Nurse Corps (AFNC) similarly sought to augment numbers of nurses in extended roles to 236 at this time. In 1973, it educated 48 obstetrics-gynecology nurse practitioners, and by 1974, 75 Air Force nurses worked in this specialty. The AFNC trained six nurse midwives in an inaugural class at Malcolm Grow U.S. Air Force Medical Center at Andrews Air Force Base, Maryland, in 1973. By 1974, the AFNC had 16 midwives practicing in Air Force facilities and sought to add 30 more within a year. By 1974, the Air Force also had 57 pediatric nurse practitioners who received their advanced practice education in a pilot program at Wilford Hall Medical Center, Lackland Air Force Base, Texas. The Air Force intended to expand that number to 129 "within the next few years." Additional plans called for creating courses to prepare Air Force nurses as practitioners with specialties in "primary care, mental health, aerospace nursing, and visiting nurse services."¹⁹ By March 1974, the Air Force Medical Service entered into an agreement with the University of Arizona to prepare primary care nurse practitioners, counterparts to the Army's adult ambulatory care clinicians. The charter class of 12 Air Force nurses "undertook six months of rigorous didactic education" and subsequently entered into six-month preceptorships with Air Force physicians in various U.S. Air Force facilities. In October 1974, the AFNC established a similar but internal primary care nurse practitioner program with the didactic portion programmed at the U.S. Air Force School of Health Care Sciences at Sheppard Air Force Base, Texas.²⁰

By June 1972, the Navy Nurse Corps (NNC) was utilizing newly educated nurse practitioners.²¹ However, Medical Corps officers in the Navy Medical Department were somewhat resistant. In 1975, the Navy surgeon general acknowledged that "many among us are just now getting accustomed to the PA [physician assistant] and NP [nurse practitioner] concept," and agreed that "some are less than enthusiastic about the idea."²² Another source conveyed the impression that the first Navy nurse practitioners "generally [were] well received." Nonetheless, some were not terribly "eager" to accept the new practitioners, and there were

“obstacles to overcome.”²³ The NNC instituted its first class of six obstetrics-gynecology practitioners in 1971 at the Naval Regional Medical Center in Portsmouth, Virginia. Its interest in Pediatric Nurse Practitioner (PNP) education became manifest in 1972 when it sponsored two Navy nurses in the PNP program at the Bunker Hill Health Center affiliated with the Massachusetts General Hospital. The Navy also began an Ambulatory Care Nurse Practitioner Program in 1974 to educate “providers of primary care to outpatients over the age of 13 years” at the Naval Regional Medical Center in San Diego, California.²⁴ By 1976, the NNC had “27 family nurse practitioners, 16 pediatric nurse practitioners, and 17 OB/GYN [obstetrics-gynecology] nurse practitioners” actively practicing in their facilities worldwide.²⁵ The NNC’s goal was to employ 255 nurse practitioners by 1978.²⁶ Actual numbers were just slightly increased by 1977, when the NNC reported that “29 family nurse practitioners, 21 pediatric nurse practitioners, 19 obstetrics/gynecology nurse practitioners, and 5 nurse midwives” were “on board.”²⁷

Post-Vietnam War economic constraints caused Congress to reduce both fiscal resources and troop ceilings in the Department of Defense. Consequently, Army Nurse Corps authorizations fell steadily from 4,752 at the outset of FY 1972 to 4,106 in the final days of FY 1972 and subsequently to 3,677 by FY 1975 and 3,535 in June 1976. This reduction in numbers was but one threat among many to the continued viability of the ANCCPP. Local commanders and chief nurses had little choice but to shift nurse clinicians from their advanced practice positions and place them on a priority basis in traditional nursing roles. With fewer Army nurses available to provide care in both advanced practice and traditional roles due to the decreased authorizations, and with a marked lack of nonnursing support staff (ward clerks, patient transporters, phlebotomists, dietary aides, etc.), the few remaining Army nurses were stretched to the limit. Excessive and enduring civilianization of registered nurse manpower spaces compounded the predicament. The situation threatened the continued viability of ANCCPP and a state of crisis loomed.²⁸ But a welcome increase in strength was achieved later in FY 1974 when authorizations rose to a slightly higher level of 3,795.²⁹

Planners delegated the responsibilities for the conduct of the various ANCCPP courses to supporting groups. The military treatment facilities (MTFs) where the courses were held provided the “funds, facilities, and related resources for . . . support and to meet the requirements of accrediting bodies.” The Academy of Health Sciences (AHS) undertook the tasks of “academic supervision” and “consultative services.” AHS also acted as liaison with the University of Texas School of Nursing so that clinician students could be admitted to the university and—if they chose—earn academic credits. The AMEDD Personnel Support Agency, which selected and assigned course directors and instructors, also handpicked students. A three-member board convened annually to consider applicants and select the best-qualified students. Criteria that the selection board scrutinized included scholastic transcripts, performance evaluations, recommendations, Graduate Record Exam or Miller Analogy Test scores, educational preparation, and professional experience. The board also focused on “contingency” factors, such as determining

whether an applicant had failed to be promoted to the next grade or whether the individual was overseas and had been in the assignment for the requisite amount of time.³⁰

By June 1974, 140 Army nurse clinicians were actively practicing in the Army. Most were assigned to MTFs in the Health Services Command (HSC) including Army nurses in various specialties such as ambulatory care, pediatrics, and obstetrics-gynecology and nurse midwifery.³¹ HSC directives required that all nurse clinicians practice under local protocols or written medical standing orders. Responsible local physicians had to sign the parameters of practice that were to be compatible with their own approach to health care and consistent with the amount of responsibility that they judged the nurse clinician capable of shouldering.³²

Original 1971 program plans estimated that the efforts of each nurse clinician would, on average, replace one-half of a physician's productivity.³³ Another authority predicted that "one nurse clinician will never function as one physician. The exact equivalency is not yet known—i.e., 2, 3, or 4 nurse clinicians to replace one physician."³⁴ These projections proved to be conservative. Although some variation existed among the clinical specialties, workload data later confirmed that productivity of many of the nurse clinicians approached comparability with the efforts of the physician providers in certain specialties. For instance, in many cases, nurse anesthetists' workload output equaled that of a physician anesthesiologist.³⁵ Moreover, in Army hospitals at Fort Campbell, Fort Knox, and Fort Hood, nurse midwives delivered from 65 percent to 75 percent of all normal pregnancies.³⁶ As early as 1973, evidence suggested that, from both a quantitative and qualitative viewpoint, ANCCPP productivity exceeded expectations. By then, a fact sheet generated by the Army Nurse Corps characterized health care services provided through the collaboration of physicians and nurse clinicians as "accessible, comprehensive, continuous and personal." Furthermore, it attributed a "significant reduction in patients' waiting time" to the introduction of nurse clinicians into the health care team.³⁷

Workload numbers compiled during the second quarter of FY 1976 for nurse clinicians lent credence to these claims and validated the clinicians' productivity. During that quarter, the average psychiatric mental health nurse clinician provided therapy for a mean total of 318 patients per quarter, devoting a typical time of 57 minutes for each client. Ambulatory care clinicians each provided care for an average of 559 patients per quarter and their visits averaged 31 minutes each. Typical pediatric nurse clinician patient visits lasted 18 minutes and numbered about 820 per clinician for that quarter. Obstetrics/gynecology nurse clinicians assessed and treated an average of 1,220 patients per quarter; their patients were seen for approximately 15 minutes each. These numbers demonstrate the diligence and hard work of the Army Nurse Corps clinicians.³⁸

The statistics on the percentage of total clinic visits handled by nurse practitioners during 1978 also provided evidence of the advanced practice nurses' productivity and work ethic. For example, in the busiest of all the Class I facilities (smaller, local post hospitals), at the Fort Hood, Texas, Pediatric Clinic, six



Nurse Clinician Lieutenant M. Wadden assesses an ill child.
Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

pediatricians and one PNP treated 14,370 children during the third quarter of FY 1978. The PNP there handled 20 percent of overall clinic visits and 52 percent of well baby appointments. At Fort Jackson, South Carolina, which reported a workload representative of mid-range activity, two pediatricians and two PNPs were assigned to the Pediatric Clinic. During that same quarter, those two PNPs assumed responsibility for 29 percent of total Pediatric Clinic visits and 92 percent of well child appointments. While reporting the data, Lieutenant Colonel Sarah A. Balkema, the consultant in ambulatory nursing care to The Surgeon General, tactfully cautioned that she was “not drawing any conclusions about physician productivity.” Balkema added that what she merely was “saying is that the nurse practitioner *is* seeing such and such percentage of the *reported* clinic workload.”³⁹ In summary, the evidence indicated that PNPs clearly carried their share of the workload.

Statistics such as these were remarkably similar to those in civilian health care settings. In an urban neighborhood health station in Denver, Colorado, for example, PNPs provided care with virtual autonomy for 82 percent of the pediatric

population served by the clinic. PNPs referred only about 18 percent of the children for specialist care. Of all the children cared for, 54 percent represented well child visits and 46 percent were sick or injured children.⁴⁰

By 1974, the Nurse Midwifery Program at Fort Knox, Kentucky, consisted of four certified midwives who managed approximately 25 percent of all deliveries. These well-rounded clinicians also taught and served as preceptors for students from the joint U.S. Army–University of Kentucky Nurse Midwifery Program.⁴¹ Ambulatory nurse clinicians served in various settings. Some were staff members of oncology clinics, providing follow-up care, supervising chemotherapy, monitoring patients' lab values, and providing emotional support to both patients and their families.⁴²

The expanded practice role of nurses was not limited to Army nurse clinicians functioning in ambulatory, pediatrics, obstetrics-gynecology, or even midwifery settings. The practice scope of Army Community Health Nurses (ACHNs) also widened. AHS revised its Community Health and Environmental Science Course Program of Instruction to include a multidisciplinary block of instruction that covered such topics as “military preventive medicine practices and methods, environmental health procedures and techniques and Army Health nursing activities.”⁴³ The intent of the restructuring was to provide more education for expanded roles.

Generally, local MTF credentialing authorities granted almost all early Army nurse clinicians—regardless of specialty—the privilege of prescribing certain medications for patients in accordance with written practice protocols under some degree of physician supervision.⁴⁴ Department of the Army, the Surgeon General's Office, conferred a similar form of prescriptive authority on selected ACHNs. A Department of the Army message directed that applicants for this limited prescriptive authority make a written request for the privilege detailing their educational background and experience. The directive also instructed applicants to attach the pertinent practice protocol. The message limited the credential to the “individual nurse concerned while assigned at the installation where the request originated.” The prescriptive credential authorized these ACHNs to order refills for pyridoxine and isoniazid for patients undergoing tuberculosis therapy. However, the credentialed health nurses were not allowed to initiate the therapy. Only physicians could start a patient on antitubercular drugs.⁴⁵

To contribute to the success of the modern volunteer army by enhancing family quality of life, planners envisioned ACHNs staffing “highly visible vans” at all Army posts. They suggested parking these vans at “strategic locations near commissaries, PXs, schools and housing areas” so that nurses might provide health education and offer other health care assistance such as “tuberculin testing, immunizations and other simple health services.” However, several restrictions made widespread use of such vans difficult at the outset. For instance, a lack of vehicles and a dearth of funds limited the provision of these mobile services. The few vehicles available to community health nurses at that time could only be used for transportation purposes.⁴⁶ Before long, however, ACHNs at Fort Knox, Kentucky,



The Army Health Nurse Mobile Health Van was situated in a housing area at Fort Knox, Kentucky, to provide professional services in the 1970s.

Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

and Fort Hood, Texas, obtained mobile vans to take their services into the communities where their clients resided and worked, thereby increasing access and effectiveness. During July 1975, the “Health on Wheels” van at Fort Hood served more than 400 clients. A few months later in October 1975, the mobile health van at Fort Knox reported 899 client visits.⁴⁷ By 1978, the Fort Knox van had logged more than 30,000 odometer miles. The community health nurse and her staff of one, a driver-technician, continued to average about 100 patients weekly, predominantly (88.3 percent) dependents of active duty soldiers. Services rendered included “limited physical examinations, symptomatic treatment of minor illness, immunization checks, cultures, referrals, and health education.” The outlay incurred by one patient visit in the mobile health van in 1978 came to \$4.05, a significant cost saving over the usual \$20.24 expense accrued by a typical patient visit to the Fort Knox MTF.⁴⁸

In Berlin, Germany, ACHNs instituted a community health information program using the Armed Forces Network radio to disseminate health promotion

and disease prevention education for their community. Other ACHNs assumed the responsibilities as chief, Health Division and Environment Division, in Army hospitals worldwide.⁴⁹

Although most advanced practice Army nurses functioned beyond the traditional inpatient care wards in ambulatory settings and some even carried out their responsibilities outside the walls of the MTFs, many practiced on a more intense plane within the customary inpatient care wards, particularly in the Intensive Care Units (ICUs). The Army's practice of segregating critically ill patients with complex care needs or those who were "physiologically unstable, at risk, or in danger of dying" in a specialized hospital zone was not a new concept.⁵⁰ Louisa May Alcott described a comparable approach used during the Civil War. Furthermore, the shock wards of World War I, World War II, and the Korean War, and the ICUs of the Vietnam War represented contemporary versions of the same concept.⁵¹

But the widespread introduction of the ICU in both military and civilian settings in peacetime was an innovation of the 1960s. The original modern-day critical care units were an outcome of several interacting forces. One major source was the advent and proliferation of antibiotic use in the 1940s and 1950s. This led to improved treatment of infectious diseases that allowed for greater attention to be focused on cardiovascular diseases such as myocardial infarctions and highly invasive surgeries such as major thoracic and abdominal cases. Patients undergoing these invasive procedures were critically ill and had extreme care needs suitable for management in an ICU environment. As Fairman and Lynaugh concluded, there existed

. . . an increasingly complex hospital population for whom, at last, more useful treatments could be provided, leading to a change in the professionals' earlier expectations that certain patients were beyond saving. With higher expectations came the recognition that such patients needed more knowledgeable nurses and physicians.⁵²

These specialized critical care providers and their patients congregated in the hospitals' ICUs.

The Army recognized the need for nurses with advanced practice skills in the ICU and also acknowledged the need to prepare such nurses for their critical responsibilities. Accordingly in 1970, the Army Nurse Corps began educating nurses to care for ICU patients.⁵³ The first iteration of many formalized six-month intensive care courses to follow met at Brooke Army Medical Center in 1973. After these seminal classes began and a charter group of educated ICU nurses deployed to the field, the Army Nurse Corps added a second site for the course. In 1974, another intensive care course began at Fitzsimons Army Medical Center. Many applicants enrolled in these courses, whose mission was to "help meet the growing requirement for well-prepared nurses to provide care for critically ill patients."⁵⁴ The Department of Nursing at Walter Reed Army Medical Center (WRAMC) subsequently began a similar program in critical care nursing that allowed both military and civil service nurses assigned there to matriculate.

The practice of anesthesia nursing long had exceeded the domains usually con-

sidered the traditional sphere of nursing.⁵⁵ Lieutenant Colonel Ira P. Gunn recalled that all Army anesthesia students were educated to some degree in “regional anesthesia as a part of their academic program.” Gunn added that the majority of Army nurse anesthetists “often managed regional anesthesia cases.”⁵⁶ Nonetheless, nurse anesthetists now formally sought avenues to widen their responsibilities even further and thus provide even more efficient, enhanced patient care. The long established anesthesia nursing course began to include even greater content related to respiratory care and regional anesthesia.⁵⁷ Beginning in May 1973, the course was expanded from 19.5 months to two years to accommodate these and other curriculum changes.⁵⁸ This extension of the course was in line with the recommendation of the American Association of Nurse Anesthetists that all entry-level educational programs for nurse anesthetists last two years.⁵⁹ Experienced nurse anesthetists also participated in ongoing educational programs to upgrade their knowledge and skills so that they might properly administer local anesthetic agents.⁶⁰ HSC charged fully trained anesthesiologists in the MTFs with the responsibility to implement training locally. The HSC commander recommended that the developmental courses conducted at installations include—at a minimum—such topics as anatomy and physiology, pharmacology, indications and contraindications, complications, neurological evaluation, review of individual nerve blocks, and preparation of regional anesthesia sets.⁶¹ However, in spite of all these efforts, only 50 percent of all nurse anesthetists were qualified to administer regional anesthesia by January 1978. General Madelyn N. Parks advised those anesthetists who were not so qualified and had no anesthesiologist to provide the appropriate tutoring locally to “make arrangements to get this done even on TDY,” if necessary. Parks noted that the “drastic reduction of anesthesiologists demands that nurse anesthetists be prepared to function in this area . . . *This is urgent.*” Parks then added that she wanted “to see 100 percent certification within six to nine months.”⁶² Eventually all nurse anesthetists did acquire proficiencies in regional anesthesia. Whether they achieved this goal in the specified time frame is not known.

Psychiatric nurses also expanded their roles. Captain Ralph G. Synakowski was assigned as a mental health nurse at the Psychiatry Consultation Service at WRAMC from 1971 through 1973. His experiences typified the practice of psychiatric mental health nurse clinicians of that era. The main components of his role were clinical management, consultation, and education. He carried a panel of about 25 ambulatory patients in individual therapy, offered consultation primarily to other staff members, taught psychiatric mental health nurse clinician students, and participated in staff development programs.⁶³

The practice of Lieutenant James Prucha also was state of the art for the times. He served as a psychiatric nurse clinician for the Oncology Service at Brooke Army Medical Center in this same period. Initially, Prucha found his assignment to be “an emotionally charged and draining job.” Among his challenges was dealing with patients who expressed “a lack of confidence in the doctor, an over-protective mother, [and] a mother jealous of her dying son’s girl friend.” He also

managed suicidal patients, schizophrenics, and depressed and hostile patients. He worked with cancer patients who expressed “a loss of faith in God” and others who were consumed with guilt feelings. During August 1973, he provided emotional support for 10 terminal patients, allowing them to ventilate their feelings. He assisted a dying patient’s family with housing concerns. Additionally, Prucha helped a father explain his imminent death to his two young children.⁶⁴

Infection control and surveillance nursing also was an expanded role that fell under the purview—at least initially—of those carrying the operating room nurse Military Occupational Specialty. The role evolved in both the civilian and military environments in answer to a seemingly unprecedented worldwide wave of staphylococcal infections first recognized in the 1950s. These infections appeared predominantly in the hospital setting in newborn nurseries and in patients with postoperative wound infections or hospital-associated staphylococcal pneumonia, bacteremia, and endocarditis. Investigators attributed the epidemic of hospital-related infections in part to the development of antibiotic-resistant strains of staphylococci and to a lack of guiding protocols and either a complete disregard or careless adherence to infection control techniques. The American Hospital Association’s Advisory Committee on Infections issued a recommendation in 1958 that all hospitals implement surveys of nosocomial (hospital-acquired) infections and, in 1970, the Center for Disease Control (now the Centers for Disease Control and Prevention) sponsored a National Nosocomial Infections Surveillance investigation and a Study on the Efficacy of Nosocomial Infection Control. One outcome of these studies was a Centers for Disease Control and Prevention recommendation that health care institutions inaugurate infection control programs that utilized the expertise of an infection control nurse. By 1976, the Joint Commission on Accreditation of Hospitals incorporated extensive standards that addressed principles of infection control for the first time.⁶⁵ In 1972, the Army Nurse Corps first assigned infection control nurses to Walter Reed and Brooke general hospitals as a pilot effort.⁶⁶ By 1978, it sponsored a curriculum to prepare infection control practitioners that was presented annually at Aberdeen Proving Ground, Maryland. The course, titled “Prevention and Control of Hospital Associated Infections,” was the “preferred course” for both military and civilian nurses responsible for the local hospital infection control programs.⁶⁷ Fifty-two individuals attended the 1978 course. Among the concerns most frequently brought to the attention of the infection control consultant, Lieutenant Colonel Helen J. Seufert, were queries about the development of local infection control policies and procedures and proper cleaning and disinfection strategies.⁶⁸ Nosocomial infections of all types eventually became important quality-of-care issues.⁶⁹

An additional expanded role focused on incorporating nurses’ expertise in planning for hospital construction. The health facilities planner became a full-time position in the 1970s when the AMEDD was heavily involved in building new and upgrading older hospitals. Early in 1976, the AMEDD formed the U.S. Army Health Facility Planning Agency, a field operating agency in the Office of The Surgeon General. Its forerunner was the Facilities Branch of the Logistics and



By 1982, attendees at the Prevention and Control of Hospital Associated Infections Course included Army, Navy, Air Force, and Public Health Service nurses. In this photo, course director Colonel Helen Seufert stands in the middle of the first row, holding the course sign. Photo courtesy of Colonel Mary T. Samecky, Carlsbad, CA.

Facilities Division, Directorate of Plans, Supply and Operations, where Lieutenant Colonel Lyndoll L. Wells was the first assigned nursing consultant in 1971. The newly transformed agency administered the Army Health Facility Construction or Modernization Program that by 1980 was managing 20 projects with a combined budget of \$500 million. The goal of this massive undertaking was to renovate or replace antiquated, decaying World War II era or older health care facilities.⁷⁰

Army nurses who served in this expanded role as health facility planners shared their expertise and ultimately served to avert physical conditions that “weren’t compatible with patient care” or that adversely affected “efficient utilization of staff.” Many of the Army nurses who served in this agency were graduates of the U.S. Army–Baylor University Program in Health Care Administration, which awarded master’s degrees in hospital administration. Many had previous experience in Army hospitals as Nurse Methods Analysts (NMAs), another role closely aligned with the advanced practice movement.⁷¹

Although not usually considered advanced practice, the responsibilities of today’s Army NMAs clearly were implemented outside of the usual parameters that define nursing practice. Their origins can be traced to 1949 at Valley Forge General Hospital in Phoenixville, Pennsylvania. There, a small group of Army Nurse Corps officers began developing “projects to improve hospital organization



Major Helen Seufert, Infection Control Nurse Clinician, discussed concerns with the head nurse of a nursing unit at the Walter Reed Army Medical Center in 1973.
Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

and administration.”⁷² From the beginning, NMAs typically were assigned to the hospital comptroller’s office. As a result, they found themselves in the equivocal position of answering to two masters—the comptroller and the chief nurse. They owed allegiance to the comptroller by virtue of their location in the organizational structure. At the same time, they had a functional or staff relationship with the hospital chief nurse. This triangular relationship not infrequently dictated the need for discretion, tact, an optimistic outlook, and a pragmatic as well as flexible approach on the part of NMAs.⁷³

Originally, these practitioners were referred to as management nurses and subsequently as nursing management analysts. During the 1950s, *management* was dropped from the position title and they became known as Nursing Methods Analysts. The elimination of *management* resulted because the word “tended to convey the impression that nursing service could not manage their activities properly and that efficiency experts—in the guise of Management Nurses—were assigned to tell them what to do and how to do it.”⁷⁴ In 1984, their designation changed



Lieutenant Colonel Lyndoll L. Wells, left, explains planning details on a model for future Army hospital construction. Wells is briefing from left to right, Brigadier General Anna Mae Hays, Colonel Lillian Dunlap, and Colonel Louise C. Rosasco.

Photo courtesy of Colonel Doris Frazier and Colonel Barbara Davis, Evans, GA.

again—in this case—from that of Nursing Methods Analyst to Nurse Methods Analyst.⁷⁵ A new generation of officers promoted this latest designation, reasoning “that the title should reflect exclusivity to nurses.” This cohort probably “did not want their expertise to be seen as limited only to ‘nursing’ but wanted to be viewed as possessing broadly utilizable qualifications as ‘methods analysts.’”⁷⁶

Included in the responsibilities of this position were conducting studies, assisting “in the determination of personnel requirements,” assessing nursing facilities for adequacy and suggesting enhancements, evaluating and developing forms and policies, and judging and approving supplies and equipment for nursing.⁷⁷ Among the many far-reaching improvements made by NMAs by the late 1960s was the “centralization of the food service in Army hospitals.” Before this time, each individual patient unit or ward in a fixed facility hospital had its own diet kitchen exclusively dedicated to providing nutritional support only for that ward’s

patients. Furthermore, by then NMAs had begun work on a system to account for workload by categorizing patients according to their nursing requirements. The patient groupings included those with requirements for “intensive, moderate, minimal, and supportive” nursing care.⁷⁸ By 1972, there were 12 NMAs assigned to Army hospitals. Of these 12, nine were graduates of the “U.S. Army–Baylor Hospital Administration Course.”⁷⁹

Army Nurse Corps support of the Automated Military Outpatient System was another innovative role. This system began in 1969 as an enterprise to expand the medical corpsman’s role and evolved into the Triage and Acute Minor Illness clinics at DeWitt Army Hospital, Fort Belvoir, Virginia. The AMEDD subsequently fine-tuned the program at Army MTFs at Fort Meade, Maryland; Fort Bragg, North Carolina; and Fort Hood, Texas. At the Fort Belvoir site, Lieutenant Colonel Margaret E. Weydert and Captain Carolyn C. Knight, the project officers, said it was one effort among many designed to help relieve the shortage of primary health care providers and reduce patient waiting time.⁸⁰ The Automated Military Outpatient System Specialists (AMOSISTS), as the enlisted corpsmen involved were called, were to sort “walk-in adult patients by symptoms,” input the information into flow sheets, and then, based on feedback, refer these patients “to appropriate treatment areas.” They also were expected to treat minor complaints with advice and over-the-counter drugs using comparable algorithms under the direct supervision of the AMOSIST physician.⁸¹ Major Mary Lou Spine, an Army Nurse Corps officer and the HSC Ambulatory Care Division AMOSIST project officer, helped to write the program guides. She explained that, at that time, she was attempting “to standardize how the AMOSISTS would be used and what they would be permitted to do.” Such protocols were necessary to achieve appropriate utilization, Spine revealed, because typically “some MDs wanted [the AMOSISTS] to perform major surgery while others wouldn’t let them take a temperature!”⁸²

To become an AMOSIST, specially selected corpsmen with good communication skills participated in one of several educational programs. They could attend a six- to eight-week course at AHS, participate in local on-the-job training, or engage in a combination of both options.⁸³ Until 1977, four Army Medical Centers and an assortment of 234 medical facilities used some version of the Automated Military Outpatient System program. However, by 1977, shortages in the numbers of physicians available to oversee the AMOSISTS’ performance and reductions in the numbers of corpsmen Army-wide ended the program.⁸⁴ Other factors that ultimately contributed to the system’s demise were the failures on the part of the AMOSISTS to faithfully use the Triage Manual, the data-collection sheets, and the AMOSIST Manual for every patient; the lack of approved drug lists to complement the treatment protocols; and the fact that the AMOSISTS’ autonomy and scope of practice often exceeded accepted standards.⁸⁵

Tentative long-range plans called for Army nurses to practice under similar conditions using automated decision-tree algorithms while caring for patients with “stable, well-defined chronic illnesses.” But this computerized approach that “was soon found to be inappropriate to the patients’ needs and a poor use of the

nurse's skills" halted these plans.⁸⁶

Although the AMOSIST program in its original format vanished, it did lead to other primary health care innovations. From 1973 through 1982, officers at Brooke Army Medical Center refined its concepts, adapted it into a more efficacious format, and extended its use into Troop Medical Clinics. These Medical Corps officers then used it as a foundation for the Army Emergency Medicine residency programs, the Emergency Medicine Program at the Uniformed Services University of the Health Sciences, and the Combat Casualty Care Course (C4). Later, the AMOSIST program served as a model for the development of telephone-based nurse triage systems so prevalent in the civilian health care sector.⁸⁷

Physical therapists, officers of the Army Medical Specialist Corps, also assumed expanded responsibilities including the "initial screening of patients with musculoskeletal disorders." They helped "to maintain the quality of care while freeing the physician . . . to spend more time with the patients requiring their special skill."⁸⁸ Army physical therapists also prescribed treatment for minor musculoskeletal ailments.⁸⁹ Occupational therapists, also Army Medical Specialist Corps officers, likewise participated in the expanded practice movement and focused on the assessment of musculoskeletal problems of the hands and arms.⁹⁰ The expanded practice of Army Medical Specialist Corps officers prepared as dietitians focused primarily on patients involved with the Army's Weight Control Program.⁹¹

The physician assistant (PA), another new role, also evolved in the AMEDD in 1971. A few years before its integration into the Army, however, civilian physicians had conceptualized the new type of health care provider as another variety of physician extender. The first educational program to prepare PAs met in 1965 at Duke University in North Carolina.⁹² For its initial classes, Duke selected military corpsmen who were Vietnam veterans as students because of their unique training, combat experience, and prior exposure to "conflict and controversy."⁹³ The need for potential PAs to function with skill, discretion, and sangfroid in a difficult climate redolent with hostility and ambiguities proved to be essential.

The Army, with a ready and eager supply of applicants with similar backgrounds, adapted their version of the PA role from the civilian model. The AMEDD's charter class of 60 PA students, warrant officer candidates, started their studies in the summer of 1971 at AHS. In August 1973, 52 neophyte PAs graduated from the two-year curriculum. The Army then promoted the graduates to warrant officer and introduced them into the Army's health care system. Baylor University simultaneously awarded the 52 warrant officers an associate of science degree. The majority of the new PAs' were first assigned to divisional units. Of all the graduates, 36 began their careers as members of tactical organizations, while 16 went to fixed facilities in Army hospitals.⁹⁴

Both variations of PAs, military and civilian, generated impassioned debates and encountered heated resistance from many individual nurses and the profession of nursing at large. For instance, at Duke, when invited to participate or teach in the venture, most professional nurses and nursing administrators in the Medical Center and the faculty of the Nursing School strenuously resisted. They

concluded with the American Nurses Association stance, rejecting the PA role for nurses because it would place professional nurses in a subservient rather than a complementary relationship with physicians. Simply put, most professional nurses refused to teach or become PAs. The fires of the controversy stoked even higher when *Look* magazine published an article profiling the innovative PA role and titled the incendiary piece “More than a Nurse, Less than a Doctor.”⁹⁵

Many Army Nurse Corps officers had comparable reservations—even spirited objections—to the whole notion of PAs.⁹⁶ Some vowed that they would “never take orders from a physician assistant.” Dunlap revealed that these Army nurses

. . . pictured the physician assistants giving them orders, supervising nurses. That was not the position I took. My position was that there’s plenty of work for everybody as long as we in nursing define nursing’s role and how our nurse clinicians will function. Likewise, the physician assistants’ roles would be defined. . . . I wanted to go ahead and try it.⁹⁷

When MTF chief nurses met in 1971 in Washington, D.C., they recommended that all “Army nurses respond cooperatively to the concept of the physician’s assistant” and reiterated that the PA’s “role and functions be clearly defined” jointly by nurses and physicians so that a “professional colleague relationship” be established and maintained.⁹⁸

After a stormy beginning, PAs eventually blended into the AMEDD. Their relationships with Army nurses were sometimes collegial, occasionally distant, and every so often acrimonious. PAs settled primarily into the Troop Medical Clinics and the line units and continued to make their unique contributions to the health of the Army.

At the outset of the ANCCPP introductory period, many Army physicians were resistant or at least uncertain about the use of Army nurses in the extended role. However, their grassroots opposition eventually tapered off and frequently it became enthusiastic acceptance once the nurses demonstrated their skills. Their wholehearted approval led many Medical Corps officers to claim the nurse clinicians (practitioners) as their own. In 1974, Lieutenant Colonel Jean M. Houghton, chief nurse at Munson Army Hospital, Fort Leavenworth, Kansas, wrote that the nurse clinicians “have the judgment to realize the difference between nursing care practice and the practice of medicine.” However, she confided, the “bigger dilemma . . . is to make the physicians aware and understand this difference.” Captain Richard Harbin, an ACHN assigned to Fort Leavenworth, also practiced in an expanded role at certain times in the Pediatric Clinic. Houghton noted that the clinic pediatricians were “extremely pleased with this concept.” She also said that she had “stressed . . . the fact that he is a nurse and not an additional Pediatrician.” Captain Nancy Martinkus (McFadin Mueller) pioneered the “chronic care nurse concept in the Ambulatory Care area.” There she encountered “almost full blown opposition from some of the internists.” Nonetheless, after her precarious start, Martinkus transformed her adversaries into allies after only two months. “The Chief of Medicine, who was originally against the idea[,]” did an about-face “almost to the point the whole concept was his.” Soon Martinkus was maintaining

her own panel of hypertensive patients.⁹⁹

Patients also were happy with the services the nurse clinicians provided. First Lieutenant Anne Hemme conducted a Well Woman Clinic in the Obstetrics/Gynecology Clinic at Munson Army Hospital, where appointments for her services were available through the Central Appointment Service. At this point Lieutenant Colonel Connie L. Slewitzke was the first woman class president of the Command and General Staff College in the residence course at Fort Leavenworth. Slewitzke often acted as a “sounding board,” relaying comments regarding health care provided at Munson Army Hospital. She said “how pleased the women of the community were with [Hemme] and the Well Woman Clinic Nurse idea.”¹⁰⁰

The widespread acceptance accorded Army nurse clinicians (practitioners) in the Army mirrored the patients’ perceptions of advanced practice nurses in other military services and in the civilian world. An Air Force spokesman characterized patients’ responses to obstetrics/gynecology and pediatric nurse practitioners as “overwhelming.” He added that the “nurses are more sympathetic with women and children patients, forming a rapport few male doctors ever achieve.” Finally, he disclosed that “in some hospitals . . . the nurse practitioners are booked for Pap smears long before the doctors’ schedules are filled.”¹⁰¹ Patient response to the services provided by advanced practice nurses remained consistently excellent in the AMEDD, the military, and civilian health care.

In 1968, Henry Silver investigated the phenomenon of patient satisfaction in a clinic that utilized PNPs in Denver, Colorado, and he noted an almost unanimous acceptance by patients and their families.¹⁰² Two decades later, little had changed. The landmark 1986 Office of Technology Assessment study revealed that advanced practice nurses could efficiently provide care autonomously for 60 to 90 percent of all patients in a primary care setting and that virtually all patients highly valued the services provided by nurse practitioners.¹⁰³

Although, for the most part, Army nurse clinicians (practitioners) were well received and highly satisfied with their professional roles, some inequities, instances of inappropriate utilization, and long-range doubts surfaced. For example, a number of clinicians reported overbooking of their appointments, claiming they were “forced to see patients . . . one per every ten minutes, 8 or more hours per day.” Others reported being demoralized because their practice was restricted only to “hundreds of summer camp and ‘back to school’ physicals,” or exclusively “seeing only VD [venereal disease] patients.” Still others were disheartened by the scorn certain physicians accorded the nurse clinicians’ emphasis on “emotional assistance and health teaching.” Some who were oriented to future career opportunities worried about maintaining their advanced practice skills and knowledge while simultaneously feeling pressure to secure promotions and advance.¹⁰⁴ Few simple answers existed for these complex issues and predicaments.

As time passed, ANCCPP was renamed the Army Nurse Clinician Program (AN-CP), sometimes called the Army Nurse Corps Clinician Program, presumably to make the cumbersome acronym pronounceable, and still later it was designated the Army Nurse Practitioner Program. In 1977, the position title of “Nurse

Clinician” was replaced by the designation “Nurse Practitioner” (NP). Moreover, Army Nurse Corps regulations acknowledged another related role, the Clinical Nurse Specialist (CNS), as a new, accepted practice specialty for Army nurses.¹⁰⁵

The Army Nurse Corps interpretation of the CNS concept differed somewhat from that in the civilian nursing community. Disparities between the CNS and the nurse practitioner in the AMEDD, as described in Army Regulation 40-6, related primarily to educational preparation. Although the regulation required the CNS to have a master’s degree in nursing in a clinical specialty area, it expected the NP to have an earned baccalaureate degree and some variation of specialty advanced practice training. The duties of both as described in Army Regulation 40-6 were essentially identical except in the area of ordering patient medications. Only the NP had prescriptive privileges, albeit a circumscribed, limited authority. However, both the CNS and NP would “plan, provide and evaluate” direct and indirect nursing care that involved patient and family assessment, treatment, and follow-on care as well as provide educational services for both patients and other nursing staff members. In addition, both would collaborate with other health care providers and provide an array of consultation services.¹⁰⁶

The civilian view of the CNS and NP roles was slightly divergent from the Army’s concept, especially regarding responsibilities. The nonmilitary model visualized the CNS role with five components: (1) direct hands-on care, (2) consultation, (3) patient and staff education, (4) involvement in research, and (5) leadership. The NP role focused more exclusively and heavily on direct care.¹⁰⁷ Several years later, a survey sample of civilian health care providers reported many “overlapping activities” in all aspects of CNS and NP “role functioning.” Respondents judged the two roles to be “more similar than they [were] different.” Findings suggested that many NPs and CNSs favored “the merging of clinical nurse specialist and nurse practitioner preparation.”¹⁰⁸ Features such as educational preparation and clinical practice indicated the two roles shared many commonalities.¹⁰⁹ Both roles seemed to be fusing.

After the introduction of ANCCPP in the early 1970s, the Army Nurse Corps continually and actively used nurse practitioners and supported a comprehensive advanced practice program. In the early years, most of the preparatory programs—both in the civilian and Army communities—operated as certificate-granting, continuing-education courses that usually did not—although sometimes they could—offer college credit. Most had no relationship with collegiate schools of nursing. The Army, however, took the middle ground when it set up an academic affiliation with the University of Texas, allowing Army graduates the option to apply for 16 graduate credits for their attendance at the certificate-granting course.

The pervasive, nationwide exclusion from the halls of higher education so characteristic during the early years of the NP movement resulted from stands taken by nurse educators in institutions of higher learning and leaders in the professional organizations. They “conceptually divided the health care delivery team into two camps: workers who cured illness and workers who gave sustaining care.” These skeptics contended that “the mixed role of the NP who sought to deliver



Major Harriet H. Werley established the Department of Nursing at Walter Reed Army Institute of Research in 1957 and launched the clinical nursing research movement in the Army and likely in the world of professional nursing.

Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

both care and cure-oriented services was suspect.” Martha Rogers, an influential nurse theorist, saw the incursion of the NP movement as an effort to lure nurses back into an archaic social order, or as she put it, into “paying obeisance to an obsolete hierarchy.” Rogers “wanted nursing to be an independent profession and felt that the NP movement was a step backward and . . . argued that . . . NPs had, in effect, left the nursing profession.” These opinions served as “powerful barrier[s] to the early institutionalization of the educational programs within the mainstream of nursing education.”¹¹⁰ Nonetheless, by the mid-1970s, a few universities began to offer graduate degrees in advanced practice roles. These curricula integrated nurse practitioner “philosophy, concept, and processes” in response to overwhelming pressures exerted by “funding agencies, the federal government, . . . students, . . . professional nursing, . . . and changes in state practice laws.” Escalating costs and inequities in the distribution of health care professionals also slowly exerted an influence.¹¹¹ By the mid-1980s, emerging national trends favoring graduate-level preparation for advanced practice at the master’s degree level culminated in the gradual withdrawal of Army-sponsored programs to develop NPs independent of academia. Thereafter, Army nurses received their education for advanced practice primarily in civilian educational institutions.¹¹²

The sanctioning of independent research activities that studied nursing concerns into the domains of the Army Nurse Corps represented another innovative role. Although Army nurses in the past had participated informally in research activities, the formal origins of nursing research in the Army dated back to 1957 when Major Harriet H. Werley launched the Department of Nursing at the Walter Reed Army Institute of Research (WRAIR). The unit was the first institutional program—probably in the world—dedicated to clinical nursing research. The mission of the fledgling research unit was to develop a program of military nursing research projects oriented to patient care problems and educate a cadre of competent nurse researchers capable of analyzing nursing practices to develop new knowledge for improved patient care. The WRAIR group sponsored research studies, subsidized nursing research conferences, and inaugurated an annual, year-long course to develop Army nurse researchers.¹¹³ The original staff of the Department of Nursing at WRAIR included Werley, Major Clara Duley, and Captain Miriam Ginsberg.¹¹⁴ Captain Phyllis Verhonick and Major Ruth Greenfield joined the unit six months later. Both Verhonick and Greenfield had just completed their doctorates at Teachers College, Columbia University, under the auspices of the Army Nurse Corps. Ultimately, the combination of senior-level Army Nurse Corps support for the program, Werley’s vision and zeal, Verhonick’s enthusiasm and wisdom, their collegial relationships with other researchers at WRAIR, and the nurse researchers’ diligence produced success beyond the dreams of all concerned.¹¹⁵

In the 1960s, the Department of Nursing at WRAIR completed several landmark nursing investigations on various clinical problems such as oral hygiene techniques, reverse isolation, and decubitus ulcers. It sponsored six iterations of the year-long Military Nursing Practice and Research Course.



Major Phyllis Verhonick measured the size of a patient's decubitus ulcer. She was renowned globally for her innovative studies of such wounds.

Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

When Werley left WRAIR and was reassigned to Korea in 1963, Verhonick replaced her as department chief. Like Werley, Verhonick had talent, a creative vision, and "possessed a sense of humor that was invaluable in helping overcome the frustrations and obstacles so frequently encountered in research endeavors."¹¹⁶ A charter member of the American Academy of Nursing, Verhonick

... was known nationally and internationally for research on decubitus and skin care. She persevered in efforts to conduct in-depth research in this area and moved from descriptive studies to sophisticated multidisciplinary research involving bioengineering quantitative measures. Her studies were designed to gain greater understanding of phenomena and to develop predictive studies.¹¹⁷

In 1968, Verhonick retired from the Army to become a faculty member at the University of Virginia. Lieutenant Colonel Miriam Ginsberg replaced her. That same year, the surgeon general named Lieutenant Colonel Rosemary T. McCarthy as the first nursing research consultant.¹¹⁸ This appointment formalized the importance of nursing research and set up an easily accessible point of contact for

consultation. In 1970, Lieutenant Colonel Glennadee Nichols assumed the senior research position. Among her credentials, Nichols claimed two previous assignments at WRAIR and also a recent doctorate from Teachers College, Columbia University.¹¹⁹ Nichols' research interests were diverse. In one investigation, she focused on patient satisfaction.¹²⁰ Her work revealed that patient dissatisfaction most frequently resulted from problems in communication between patients and hospital staff. The findings became the impetus for the development of an active patient advocacy program at WRAMC in 1974.¹²¹

In 1973, Lieutenant Colonel Margaret O'Dell became the division's director. At that time, after 15 years under WRAIR, the Division of Nursing sailed into stormy seas. Amongst militarywide retrenchment and personnel shortages, the director of WRAIR substantially reduced the Division of Nursing's budget and its personnel allowances. O'Dell's position remained, but the authorizations for four additional nurse researchers, one administrative specialist, and one secretary were purposely unfilled. Other resources such as office and laboratory space were also pared down. Evidence suggests that personality conflicts between O'Dell and the WRAIR command also contributed to the widening schism.¹²²

In the 1970s, Colonel Ed Buescher was director of WRAIR. Buescher objected to the Army Nurse Corps presence in WRAIR, a Medical Research and Development Command unit. Colonel Robert J.T. Joy, WRAIR's deputy director, disclosed that Buescher felt that the nurse researchers at that time "did trivial research, could not write a research protocol, could not put results in decent manuscript format, and did not ask important questions." Joy expanded on other issues that precipitated nursing's eviction from WRAIR. He noted that the nurses were predominantly doing clinical nursing research in an institution (WRAIR) dedicated to "military directed" research. Confusion over funding further complicated matters. WRAIR's budget originated from Program 6, Research and Development dollars, while the nurses' clinical research money came from Program 8, Operations and Maintenance dollars, a funding source foreign to WRAIR. Through his actions, Buescher clearly communicated his disdain. When Nichols left WRAIR in 1973, Buescher refused to see her for an exit interview. Instead, Joy "pinned on her medal in a near private ceremony." Joy remarked, "It was all so sad." He added that Buescher ultimately "ordered that all five nurses be put in one room not quite large enough for five desks; the back row could only be reached by turning sideways and leaning against the wall." This move clearly was the last and most decisive strategy used to remove the nurse researchers from WRAIR. Joy summed up his view of the debacle, stating that the nurse researchers "were nice people wrongly placed in a high-powered biomedical scientific institute."¹²³

With the dawning of 1976, nursing research was effectively coerced out of WRAIR. In November 1975, Parks recommended to the surgeon general the transfer of the Division of Nursing at WRAIR to WRAMC, reasoning that nursing research ideally should be conducted in a hospital. The surgeon general concurred with the recommendation in January 1976, thus terminating the WRAIR–nursing



Standing on the steps of the Walter Reed Army Institute of Research (WRAIR) with director, Lieutenant Colonel Harriet H. Werley, are the first four Army nurses to participate in the first 40-week Military Nursing Practice and Research Course launched at WRAIR in the fall of 1961. Front row from left to right: Captain Elenore F. Sullivan, Lieutenant Colonel Harriet H. Werley (director), and Captain Rosemary T. McCarthy. Second row from left to right: Captain Katherine F. Galloway and Major Leonora M. Moseley.

Photo courtesy of Army Nurse Corps Archives, Office of Medical History, Falls Church, VA.

research affiliation, and on 1 April 1976, WRAIR formally relinquished the remaining nursing manpower spaces and funding.¹²⁴

Lieutenant Colonel Elenore Sullivan became the first chief and only staff member of the diminished Nursing Research Service when it settled in its basement office in Building One, the original Walter Reed Hospital building. Fortunately, at the same time, Colonel Katherine Galloway, who was a graduate of the first Military Nursing Practice and Research Course, was chief nurse at Walter Reed. She represented a sympathetic and supportive figure for Sullivan, who sustained the service primarily by facilitating the research endeavors of Army nurse graduate students who were studying in nearby civilian educational institutions. Sullivan expedited the students' data collection in the clinical areas of the hospital. Eventually, the Nursing Research Service staff expanded once again to include four additional nurse researchers.¹²⁵

Major Janet Southby's assignment as the new chief in 1979 injected a healthy and much needed dose of vitality into the service. After earning her doctorate at Catholic University, Southby signed into WRAMC and immediately began developing her researchers, who in turn produced an impressive body of studies. Their investigations focused on diarrhea in tube-fed patients, reducing discomfort from intramuscular injections, health care workers' attitudes toward violence in close relationships, introduction of a post-anesthesia score in the recovery room, and the effectiveness of measures to relieve the pain of episiotomies.¹²⁶ Moreover, the hard-working Southby expanded contacts with research consumers and concerned parties on many levels including initiating an annual activity report and publishing and disseminating a newsletter, *Nursing Research Notes*. She encouraged the Nursing Research Service staff to publish in professional, refereed journals that resulted in a renaissance of professional writing within the organization. By 1980, the researchers also took part in hospital committees, presented classes and participated in newcomer orientations, and completed their share of hospital weekend supervision duty.¹²⁷ Although most of these responsibilities facilitated exchanges between researcher and clinician and probably were appropriate duties for nurse researchers in a medical center, they did distract the nurses from a total dedication to the exclusive practice of nursing research. Werley had articulated her misgivings about the diversionary nature of such pursuits five years earlier in 1974. She argued:

In the interest of having the nursing research nucleus group located in a setting conducive to research, I would strongly recommend that the bolstering of the Army Nurse Corps research potential be accomplished within the confines of the Research and Development Command. This is not to say that some of the research will not be worked through with personnel in the clinical setting, but being located within the Research and Development Command, the nursing research nucleus group's work should be facilitated, whether it be basic or applied in nature.¹²⁸

Experience has verified that there is a place for nurse researchers in both hospitals and in purely research institutions. Later, Army Nurse Corps officers would be welcomed back into Army units exclusively dedicated to research.

The climate at the Institute of Surgical Research (ISR), commonly known as the Burn Unit at Brooke Army Medical Center, also was somewhat intimidating for nursing research in the late 1970s. At that time, the Army Nurse Corps assigned Major Hedy Mechanic, a doctoral nurse researcher, to the ISR. Her assignment there “was controversial and short-lived,” however, as the ISR commander regarded “nursing research . . . an oxymoron” and “nursing scholarship was considered a punch line.” Mechanic defended her role and “clashed with the administrative leadership on research design and methodology and was quickly pushed along out of the area.” The milieu was one where “good nurses [knew] their place, [kept] their mouth shut and eyes averted.” With time and the influx of new blood, however, the outlook changed. Nonetheless, “the ramp up for nurses to publish or conduct research . . . was steep and arduous initially.” The first step on the route to professional recognition and acceptance involved the physicians’ acknowledging in writing the nurses’ contributions to their investigations and publications. Then the commander/director allowed nurses to publish clinical articles and book chapters and to make presentations. He “spent considerable time reviewing and making changes in manuscripts written by nurses and [the nurses] were grateful to a person for his tutelage and support.”¹²⁹ But it was only with the passage of the old order and a paradigm shift from patriarchy to collegiality that actual clinical nursing research gained a firm foothold in the ISR. In the late 1990s, Colonel Elizabeth Greenfield received TriService Nursing Research funding to study the efficacy of a new technology—a cap implanted with electrodes to measure pain indirectly in unconscious patients.¹³⁰ Another study questioned whether hardiness in burn unit nurses predicted burnout or whether it buffered the effect of caregivers’ stress on burnout.¹³¹ An additional investigation implemented by Colonel Linda Yoder probed the long-term outcomes of burn unit patients, focusing on their quality of life and functional status.¹³² Although progress was slow and laborious, ISR was moving into the modern age and approaching parity with state-of-the-art nursing research.

In the 1970s, a widespread Army Nurse Corps research agenda emerged. The Army Nurse Corps first assigned nurse researchers to the Health Care Studies Division at HSC. They conducted an assortment of in-depth investigations on research topics such as the foundation studies for the Workload Management System for Nurses, a comprehensive tool for documenting workload and predicting staffing requirements.

The Corps assigned a nurse researcher, Lieutenant Colonel Hazel W. Johnson, to the U.S. Army Research and Development Command’s Materiel Development Division for the first time in 1967. She remained there through 1973. Johnson established a nursing role while serving as a project officer for several programs. She recalled:

I involved myself in a number of opportunities in the Research and Development command when it called for nursing input. I was available to the staff and that was the idea. The other thing, of course, was that I also knew other people out in the Army nursing community who would be available for

consultation. If they needed someone to take a look at something, I might recommend a name of an individual who might be the appropriate person to do that. My major reason for being there was to work on the field sterilization study.¹³³

The goal of Johnson's primary work was to develop a field sterilizer, a portable piece of equipment to sterilize instruments in the combat setting. Another of Johnson's initiatives involved creating a system to identify pyrogens (fever-producing substances) in materials such as medications. The system became known as the Pyrogen Identifier, Rapid Response.¹³⁴ Johnson also worked at this time with a New York City group studying the need to aerate supplies after gas sterilization, a process used to eradicate all traces of ethylene oxide from instruments and equipment after sterilization and before human use.¹³⁵

The Army Nurse Corps historian, assigned to the U.S. Army Center of Military History, began an important program dedicated to collecting and preserving the oral histories of outstanding Army Nurse Corps senior officers, key leaders, and other Army nurses whose experiences, ideas, and contributions were representative of the majority of the Corps, thus preserving the institutional memory of the Army Nurse Corps. Although not strictly regarded as research, *per se*, the oral history collection represented a treasury of data upon which many future historical research projects would be based.

Many Army hospitals also created nursing research committees that fostered grassroots research efforts. They disseminated their research findings and those of other health professionals to local health care providers, the ultimate consumers, who used the new knowledge at the bedside.¹³⁶

To identify pertinent, realistic, and appropriate research projects and to ensure that research endeavors addressed the most important and pressing of questions relevant to Army Nurse Corps needs, the Corps established the Nursing Research Advisory Board (NRAB). It initially convened in 1979 and met for three days. The NRAB's membership included the Corps leaders, researchers, and consumers of research products. This gathering bridged the concerns of clinical practitioners with the efforts of nurse researchers. The first NRAB meeting drafted a five-year research plan, outlined a protocol for submitting research proposals, and developed a procedure to assist officers that were implementing research projects while students in civilian academic institutions.¹³⁷ Thereafter, NRAB continued to meet every two years to "advise and assist the Chief of the ANC [Army Nurse Corps] in establishing research priorities and to monitor the [p]rogress of nursing research throughout the AMEDD."¹³⁸

The first Phyllis J. Verhonick Research Conference, named after the iconic Army nurse researcher who died in 1979, first occurred in 1981, when the AHS hosted the symposium at Fort Sam Houston, Texas. Forty-five Army nurses attended, 17 of whom presented research reports. Werley, the then-retired leading light of nursing research in the Army, provided the keynote address, while Colonel Rosemary McCarthy eulogized Verhonick, and Colonel Sarah Halliburton spoke on descriptive research designs. Major Susie Sherrod and Captain Judith Kirby became the first recipients of research honors for their award-winning papers.¹³⁹

The conference afforded participants the opportunity “to discuss the current status of research in nursing practice, education, and administration and to explore research methodologies appropriate to nursing research.”¹⁴⁰ Following its second meeting in 1982, the symposium thereafter has met once every two years.

In 1988, a group of doctoral military nurses met at the Association of Military Surgeons of the U.S. national conference. This led to the 1991 formation of a Federal Nursing Research Interest Group, later the TriService Nursing Research (TSNR) Group, comprising Army, Navy, and Air Force nurses. The group’s initial intent was to foster collaborative research among the three services. Lieutenant Colonel Cindy Gurney was the first Army representative to TSNR, followed later by Colonel Patricia Troumbley. One of TSNR’s first actions was to convene a meeting with the corps chiefs and directors and the staff at the National Center for Nursing Research at the National Institutes of Health to obtain advice on “developing a coordinated strategy of nursing research . . . within the military milieu.” All participants recognized that the implementation of a program of military nursing research could not advance without funding.

Financial support soon followed in the form of a congressional appropriation sponsored by Senator Daniel Inouye. In FY 1992, Congress appropriated \$1 million to support military nursing research. In subsequent FYs 1993 through 1995, military nursing research appropriations grew to \$2 million, \$3 million, and \$5 million, respectively. In FY 1996, the Department of Defense Authorization Act placed the TSNR Program (TSNRP) into the Department of Defense Health Care Program under the auspices of the Uniformed Services University of the Health Sciences.¹⁴¹

The Army provided the initial leadership for the TSNRP. In August 1997, Lieutenant Colonel Catherine Schemp became the first program manager for the TSNRP. She administered the by-then \$6 million annual appropriation, collaborated with the TSNRP Group (a panel of advisors), and liaised with the chief of the Army Nurse Corps and the directors of the Navy Nurse Corps and Air Force Nurse Corps.¹⁴²

The defining themes of the 1970s were change and renewal. Change significantly influenced Army Nurse Corps officers’ roles, numbers, career activities, uniforms, and education. Change, mostly positive, occurred in gender and minority issues. Clinical nursing research and quality assurance activities evolved. Readiness was charged with a new sense of immediacy and vitality, and conditions in the Reserve and National Guard components improved. With the turbulence of change came inevitable disruption, stress, and discontent. But also with change came improvement in services rendered, better overall conditions, and enhanced satisfaction. So marked was the transformation from the early years of the post-Vietnam War period to the later years of the decade that the AMEDD and the Army Nurse Corps grew from a significantly understaffed organization coping with reduced resources to a much improved functional unit.

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