Review of Allied Health Education: 3

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PREFACE

With a deep sense of respect and love, the editors dedicate this volume to the glowing memory of Miss Mary Elizabeth Switzer.

Mary Switzer's life of public service is one of the great stories of the federal government's Civil Service. Her name is indelibly associated with the Rehabilitation Services Administration (RSA), which she served as director and administrator for seventeen years. When Health, Education and Welfare Secretary John Gardner grouped RSA, the Children's Bureau, the Administration on Aging, and the Assistance Payments Administration into the Social and Rehabilitation Service (SRS), he appointed Mary Switzer its first administrator.

When Mary retired from federal service, such was her enthusiasm for continuing service that she moved into an office at the American Society of Allied Health Professions (ASAHP) to become special consultant for the society. She also served as vice-president of the World Rehabilitation Fund.

At her retirement party, John Gardner characterized Mary Switzer well: "She has a warmth and spirit that lights the landscape. But, above all, she taught us that we are interdependent. She taught us that we need each other."

During her lifetime she was the recipient of more than twenty honorary degrees and countless national and international awards. The Mary E. Switzer Building—HEW's South Building—is the only federal government building in Washington named for a woman.

In November 1971, a month following her death, ASAHP established the Mary E. Switzer Memorial Lecture Series as an ongoing memorial to the leadership, vision, and spirit of this great public servant who was our colleague and friend.

Joseph Hamburg
Darrel J. Mase
J. Warren Perry
THE NEXT DECADE:
ISSUES AND CHALLENGES

J. Warren Perry

A quarter-century ago Arnold Toynbee, the great British social philosopher, predicted that the twentieth century would be chiefly remembered as "an age in which human society dared to think of the welfare of the whole human race as a practical objective."

High on any list of thinkers and innovators who sought the accomplishment of this goal would be Mary Elizabeth Switzer, beloved champion of handicapped and disadvantaged people everywhere. Mary Switzer was my boss for six years, my colleague in many professional pursuits, and my friend. One of her favorite quotations, attributed to Victor Hugo, was: "Greater than the tread of mighty armies is an idea whose time has come."

Toward the end of her life, she witnessed remarkable new developments in the American system for delivering health care services. She and many others among us hoped and believed that, in a time of change, the emerging concept of the allied health professions would prove to be the indispensable link between past and future.

A decade or so ago, others were suggesting that the dilemmas of the health system could be solved by increasing the number of physicians, with the result that millions of dollars were ear-

This essay is a slightly altered version of the author's Mary E. Switzer Memorial Lecture, presented at the annual meeting of the American Society of Allied Health Professions, Dallas, Texas, November 21, 1977. It appears here by permission of the Journal of Allied Health. Copyright 1978.
marked through capitation grants to assure a major expansion in physician manpower. Other assumptions, and a number of half-truths, prompted other health manpower legislation which, enacted and implemented piecemeal, failed to meet the requirements of a comprehensive, clearly spelled-out health plan for the nation. Today we find still unresolved the old and crucial problems of accessibility, comprehensiveness, coordination, continuity of services, and escalating costs.

Why have we failed? For one thing, many of us have been attempting to develop new programs, new professions, and unique projects without clearly defined national or local objectives. Our programs remain producer-centered rather than community- or people-oriented. Our vast health arena is more parts-oriented than systems-oriented—marked more by diversity than unity—and we need to give order to the parts and bring them together.

What meaning does this indictment of today's health programs have for those of us identified with allied health education? What are the major issues we must face in our respective health fields and in our schools and colleges?

I am speaking about issues that concern allied health education and not the affairs and politics of the American Society of Allied Health Professions. These issues are appropriate concerns and should be within the professional purview of allied health practitioners, faculty, and administrators, if important segments of the professions are to have a voice in determining future educational programming. These same issues should be equally important to all the individual allied health fields, and to units of allied health programs, whose leaders desire to take part in health planning for institutions, states, and the nation.

**Issue I: Restructuring the Didactic and Clinical Programs in the Allied Health Professions.** Let me indicate my bias at once: Closing the gap between the level of allied health education today and the level it must achieve tomorrow will be largely effected through revision and restructuring of existing programs to accommodate the requirements of a system yet to be.
This should not indicate that I advocate a revolution in curriculum change; instead, I am confident that an evolution in program content, based on new imperatives in the health system, will be required if we are to play a more significant role than in the past—and be more effectively utilized by other health professionals.

High on my list of pivotal changes required in all the health professions and service programs is an infusion of primary care influences into the system. Is it appropriate to ask how each of our educational curricula reinforces primary care philosophy and service in our didactic and clinical education efforts?

Another question: Whatever happened to the general practitioner of yesteryear? Many of the new developments in health manpower are attempts to fill the void left by the disappearance of the general practitioner. The nurse practitioner (NP), the physician assistant (PA), and many other categories of health professionals are sharing this formidable task.

High-priority attention is being directed to these areas by federal planners. Problems of health care accessibility, continuity, comprehensiveness—hallmarks of primary care services—are being vigorously attacked by some of the health professions engaged in education planning.

The Institute of Medicine will soon be releasing the final report of its study, "Primary Care in Medicine: A Definition." The recommendations are eagerly awaited by the health community. As a member of the study committee, I was heartened to note that at least two of the allied health fields (physical therapy and dietetics) have already attempted to spell out their special roles in primary care activities.

We can expect that curriculum changes will bring about the selection of new sites for primary care clinical education and offer broader opportunities for various health professions to participate in planning outpatient and ambulatory settings. These settings will serve as legitimate models of delivery systems integrated with existing educational programs emphasizing primary care. In time, faculty will serve as role models and as stimuli for student involvement, and eventual participation, in these new programs.
Since primary care services are now being earmarked for those who need them most (the elderly, minorities, the poor, and residents of geographic areas with few or no physicians) it must follow that this reemphasis on primary care will engage the strong interest of many allied health professionals.

Preventive health measures are receiving almost as much attention these days as primary care concepts. With public health authorities continuing to emphasize the need for broad programs in this area, we may expect the subject to be part of all national health policy discussions in the future.

Task force reports presented at the National Conference on Preventive Medicine in 1976, sponsored jointly by the John E. Fogarty International Center for Advancement of Study in the Health Sciences (under NIH) and the American College of Preventive Medicine, should be examined carefully for implications bearing on the educational and service potentials within the allied health fields. Without question, as recommendations in these reports are implemented, fields placing major emphasis on diagnostic services and health education will have much to contribute. As a participant in the 1976 conference, I confess to a feeling of discouragement that the various allied health fields and units made so little impact, having failed to spell out their potential values and their places in preventive health care programs of the future. We may find that a wide spectrum of preventive activities will one day have high priority in national health planning.

Although many influential issues may claim our attention in the years ahead, there is little question that gerontology will emerge as one of them. As research efforts are directed to finding better means of developing effective programs for the aging population, allied health leaders need to ascertain the present and future roles each discipline may assume in long-term care, including a place in skilled nursing and long-term care facilities. Because of the growing cost-factors in these facilities, each educational program and field needs to identify appropriate role models in home health care, for we all know that this area may receive intense consideration.

The Gerontological Society, the new national association for
the study of the aging, has attracted more than five thousand members. It is one of the strongest multidisciplinary alliances yet formed by health professionals and biological and social scientists. I can only ask: Is allied health in or is it out?

We know beyond question that we have much to contribute to the study and care of the elderly, but we must find ways to delineate our strengths as allied health professionals in order to fulfill our potential. A recent article in the *Journal of Allied Health* by Dr. Norman Cates, "Gerontology and Improving the Quality of Health Care for the Elderly," makes specific recommendations for curriculum enrichment in this area which are meaningful to many allied health disciplines.¹

**Issue II: Regionalism and the Health System Agencies (HSAs).** The federal government has attempted during the past decade to decentralize American health planning by transferring control from the federal-national locus in Washington, first to the states, then more specifically to smaller regions of the country. Many of us responded to the promises of the Regional Medical Programs (RMPs) and later tried to become involved in Comprehensive Health Planning (CHP). As we know, from these earlier pursuits have emerged the Health Systems Agencies (HSAs).

The first fully approved HSA was established in western New York, with its core in the metropolitan Buffalo area. An allied health representative, Dr. Joseph Nechasek, former associate dean of the School of Health Related Professions, State University of New York at Buffalo, chaired the planning committee that brought this project into being.

With the thrust of health planning and regulation shifted to the regional level, it behooves the allied health professions, or those representing them collectively, to make themselves heard at the regional or subcouncil level of influence. Those who have acquired representative power on such regional boards will not only administer the federal standards but be responsible for changes that will take place. Allied health educators and practitioners can attempt to join in this regional endeavor, but medical leadership is paramount in most, if not all, existing HSAs. However, the other professions will be
heard if they have the determination to become involved. Make no mistake about it, HSA is the new center for potential change.

The new regional arena may provide a unique opportunity for many health professions to enter into direct communication with each other, and also with influential groups of health consumers which are guaranteed a place in HSA affairs by law. As consumers become better organized and coordinated, they promise to play a full part with the community’s “providers.” I cannot overemphasize how important it is that allied health seize this opportunity to involve itself in participatory decision-making in regional health affairs.

Some HSAs may be expected, and indeed one day may be mandated, to examine the efficacy of various prepaid care plans. How does allied health respond to the federal government’s influence on our health care system? Washington’s influence grows ever stronger. HEW Secretary Joseph Califano invited 500 of our largest corporations to offer Health Maintenance Organization (HMO) membership to their employees and take the lead in developing this form of prepaid health care.

Does allied health have a stated position on HMOs and other prepaid health care plans? Should we? One thing is certain: no one will ask us what we think if we do not indicate a desire to speak out.

There is a parody of an old saying that might be appropriate to my concern for our involvement in these issues: “If your back is up against the wall, you can’t read the handwriting that’s there.”

**Issue III: Health Manpower Overproduction.** Have we trained too many health workers in the past decade? Vigorous, uncoordinated manpower production, possibly overproduction, has become a source of great potential conflict among the health professions. Independently, and at all levels, the professions compete for expanded duties and seek a blurring of professional roles, while new disciplines continue to appear on the scene to confuse the picture further.

A decade ago, we all heard the nation’s clarion call for more and better health care and the professional workers to deliver
these services. The response was far-reaching. National legislation and state programming were predicated on the assumption that the so-called health crisis of the times could be alleviated by placing more manpower in every health field. National, state, county, and private funds were pledged to enlist and educate health personnel in numbers never before dreamed possible. Colleges and other institutions aimed for the maximum output of graduates. High-priority goals were also set for the preparation of teachers and administrators to staff the educational effort.

Along with the new armies of health workers came entirely new identifiable health fields, some with exceedingly narrow functions and modest, compartmentalized tasks with many grey areas of responsibility.

Edmund Pellegrino, one of the nation’s keenest spokesmen for the health professions, summed up the situation this way: “Let us admit unequivocally that allied health personnel are absolutely essential in providing the complex technical services modern medicine entails. The question is not one of returning to some pristine simplicity which would obviate their use. Instead, the real issue is how to bring about some convergence in function and numbers. The present course of unguided proliferation is socially untenable and fiscally unsupportable.”

Very little is taught about communication and coordination among the numerous health fields, many of which seem to be instilled with what I call the “identity of one” syndrome, or the “impotence of singularity.” Now and for many years to come health personnel trained in the present system will feel severely segregated. Faculty role models teach us, in the main, that ours is really the only health profession. The curriculum we pursue is geared to reinforce this principle. The national and state associations we join are ready to defend it. The journals we read, if we read any, relate usually to one specific field.

By what means will the convergence called for by Pellegrino take place? Will it be accomplished by persons identified with the health-related professions or will we stick our heads in the
sand and wait for others, perhaps in federal agencies, to make the decisions for us?

Who can say whether we are overproducing? Who should have answers to this question which almost defies a logical reply? Pellegrino observes: "It is notoriously difficult to arrive at what numbers of health professionals any society will need. This is the consequence of our uncertainty about what services we wish to provide, what distribution we wish to make of these services, and how they shall be deployed among the existing and future health workers."

But can we stop here and assume that, without premises upon which to collect data, we need not be committed to providing information for those who question the output of our programs? I know of no industry that does not conduct careful evaluations of the marketability and utilization of the products it manufactures. Our products are our graduates. Since we are responsible for the burgeoning numbers of students, then we must, indeed, be held responsible for careful, continuous follow-through on our graduates. This accountability is absolutely essential to assure those responsible for our funding, today and in the future, that our graduates are being properly placed in viable systems.

Faculty and administrators both need to participate in this most necessary research, which must become an ongoing activity and reach both graduates and their employers. Statewide or regional analysis of these institutional follow-up studies would supply additional answers to problems of overproduction.

Most of us in allied health education are like the dachshund who grew to such length that he had no notion of how long it took his head to communicate with his tail; even as his eyes filled with tears of woe, his little tail wagged on. We must come to recognize the malady for what it is: a gap between what we produce and what is needed.

Let us also recognize the importance of producing such data and praise those in ASAHP and other national and state health associations, and in state and regional planning offices, who are attempting to solve personnel needs in harmony with the available data on manpower production. Any endeavor runs
a risk if it lacks accurate, comprehensive information concerning its own size, function, and future projected needs. The production of such data, desperately required by health planners, should be a high priority of every health-related organization.

**Issue IV: A Commitment to Graduate Education and Research.** In a recent guest editorial on graduate education in the *Medical Record News*, I dealt with some of my convictions concerning the changing nature of graduate education in the health professions. These have a place here.

Any discussion of graduate education in our fields must be viewed in the context of the inevitable changes taking place in the health arena itself. As public, private, and federal grants become scarcer and tighter, institutions of higher education will be forced to set priorities in graduate curriculum offerings. Programs of the past and present have attempted to respond to some of the following emphases: 1) development of scientific knowledge based on advanced technology and clinical research; 2) development of teaching capabilities for instructional programs at all levels; and 3) strengthening the supervisory or administrative aspects of both health facilities and educational administration.

Of one thing I am certain today: graduate education cannot remain solely an add-on product for advanced clinical competence. Although leadership is sorely needed in clinical supervisory areas, the targets of concern in health delivery will have to become a primary focus for new graduate curriculum development. Graduate programs will have to deal with a redefinition of the changing roles of the health professional based on new competencies needed by the practitioner. These new competencies will enable the practitioner to respond to changing needs in the hospital environment in long-term, primary, and ambulatory care settings, and in home care. The practitioner will also assume a role in consumer education and health delivery planning. These are only a few of the changing needs and new roles in health care.

A major hindrance to effective accomplishment of graduate program goals can be the attitudes of faculty. Affirmative
answers to these two questions will go a long way toward assuring success: Does faculty provide effective role models for graduate students? And does the curriculum provide for constant revision based on effective evaluation procedures and follow-through studies of graduates and their employers?

Graduate education is being challenged to provide leadership in planning the health system of the future. We must not be content to respond to a system without having participated in its development. Thus I believe that our graduate students of the future must be aware of and concerned with the issues and problems of that system.

There is a great need for research on behalf of the allied health fields. With the emergence of many new graduate programs for individual professions, as well as for education and administration in allied health, the opportunity presents itself for graduate faculties to stimulate and strengthen the scientific bases for the theory and clinical science fundamental to these fields. So many scientific bases have been researched and developed by leaders in fields related to ours (the basic sciences, education, and administration) that our task becomes one of educating our own scholars—scholars who will work in our own fields. I am implying the existence of an identity crisis in many allied health professions. Unless we have leaders to identify our future roles, our contributions will always be underestimated.

When this identity crisis is added to the reality of budget crises in many educational institutions, the problem of finding support for the graduate programs becomes critical. Faculty will have to be alert in identifying available funding. Trainee-ships, incentive grants for interdisciplinary projects, new programs in the National Center for Health Services Research—these are among the resources that must be sought.

The respect of our colleagues in the other health professions and in basic sciences, education, and administration may rest on our ability to demonstrate the existence of strong graduate programs.

**Issue V: Role of Continuing Education in Allied Health Education.** The significance of continuing education has been an important agenda item for several health professions, but
it deserves wide study and should be listed on any statement of issues.

Do we instill in our students, the practitioners of tomorrow, the knowledge that the curriculum in which they are engaged is only the beginning of their learning lives? Unless they are cognizant of the value of continuing education—lifelong learning—they are unlikely to realize that their professions are in the process of constant change. Expanded duties, new technologies and equipment, and new settings for delivery of services are influences that require a commitment to the maintenance of competency through continuing education.

Recertification and relicensure are areas that call for some kind of national plan, with built-in guarantees that the states will have acceptable means of assuring such competence. On the tremendous challenge of interprofessional continuing education, I recommend Dr. Anne Pascasio's essay on this subject in the *Journal of Continuing Education in Nursing*.

I wonder whether allied health leadership will come up with plans for continuing education that are self-directed and self-implemented. This sort of forward-looking leadership has appeared in a few fields, but the future role of continuing education merits broad national study. Allied health education centers should some day be the logical settings for the program recommended by our own constituency.

**Issue VI: Further Evaluation of the Concept of Allied Health Education.** Perhaps one who attended the birth of the allied health concept in 1966, and belonged to the even smaller coterie present when the term “allied health” was conceived, should reflect on the motivations that led to this new departure in health education.

For many years before 1966, education programs in medicine, dentistry, pharmacy, and nursing had benefited from legislation funding manpower development. While HEW recognized that a large number of other health professions also needed help desperately, the government had no intention of responding to individual professions—and had no means to do so in any case. At that time, HEW studies had already identified the fields in need of manpower expansion, especially those
for which there was little, if any, support in existing legislation. The initial response, a collective terminology covering many fields and called "allied health," was followed by the formulation of legislation entitled *The Allied Health Professions Training Act of 1966*. Quite simply, that's how it all began.

Professional fields and institutions profited greatly from this and subsequent legislation. In one decade, we saw the original thirteen member institutions in ASAHP grow to hundreds of units and thousands of programs. Much of the program growth was accomplished with funding from county, state, and private resources. It is now a fact that the United States has in place a gigantic manpower system for allied health education.

One of ASAHP's founding institutions, after long and heated deliberations, has decided to close its allied health school and all departments associated with it. The lack of graduate programs has been given as the principal reason.

Shutting down programs is one response to the budget difficulties being experienced by a number of institutions. With this in mind, I ask a sensitive question: What evidence do we have, or need, to indicate that the presence of allied health administrative units on college campuses makes a budget difference? Budget officers speak of numbers, and thus on local and national levels we need to know the relative strength in numbers of students graduated during the last decade. But how do we measure the quality of individual curricula? What effect have individual departments had on budgets? What about promotions and tenure for instructional personnel? What interdisciplinary activities have been developed as ongoing components of curricula? And, most important, what changes have taken place in the health system to indicate that the grouping together of allied health programs in administrative units has affected the respect for these programs in the communities they serve? If there are negative effects, can they be cataloged and measured?

Although I believe the data can be compiled and will be positive, no one has the answers to these questions readily available. Those of us who believe that evaluation is an inte-
gral part of planning and development must discover objective data on the efficacy of the allied health education concept.

Those who have been selected to serve on the new National Commission on Allied Health Education, a study group supported by the W. K. Kellogg Foundation, face a great challenge. If they deal with all the issues raised in Dr. Pellegrino's searching paper, "The Allied Health Professions: The Problems and Potentials of Maturity," and those few formulated here, they have a monumental and exciting task. I hope they will not spend too much time in assessing where we are, though an understanding of the status quo must provide a background for study.

These words from my 1969 presidential address to ASAHP, as idealistic now as they were then, still express my feelings about the challenge we face:

Barriers between and among the health professions, among associations and agencies, must be broken down if we are to succeed with a viable, effective health program. Is it not now about time to consider the relationship of each health profession to each other . . . with the starting point of discussion not based on the relationship of the professions but rather the relationship of each to the system of health care and the function of each in relationship to the patient or client? As we break down the boundaries of indifference, suspicion of intent, and concentrate on the similarities which exist in educational programs and in patient care function, we will discover new ways to learn and to practice together. And, hopefully, our students, and ultimately the patient, will come to that happy state of mutual respect through shared yet individual responsibilities that are understood and appreciated by all.

Health care in this country will never be a workable system until all of the health professions are recognized for what each can contribute . . . until the full potential of each field is recognized and utilized to the fullest. And the emphasis here is on the words recognized and utilized.\(^8\)

Our personal strength and the professions we serve can be enhanced when we learn to accept and work with others whose unique contributions we must recognize; we are all stronger together.
To provide for evolutionary change in health planning, and to avoid revolution, strong leadership must be found in all the health professions. Strong support is needed from individuals with vested interests in the health needs of the people rather than in a single profession or department.

Several years ago, Dr. Mary Hawthorne and I were involved in a Johnson Foundation project in which we used as our personal chastisement a paraphrase of the Marine slogan, "We were so busy killing alligators, we forgot our objective was to drain the swamp." ASAHP has been so busy attempting to define its turf, and so caught up in organization, that its members have forgotten that our concerns should be the issues in allied health education and our relationship to them.

Many of us have walked together through a decade of responsibility and service to allied health education. Together we've shared the joys and excitement of success and the disappointments of unfulfilled goals. What will be written on the slate of time a decade from now?

My feelings can be summarized with economy of expression by this sentence from Pindar, that greatest of the Greek poets: "Words are but the dreams of those who are awake." As practitioners, educators, and administrators, are we awake to the challenges in allied health education with which we are faced today? If the answer is yes, then let us prove it.

Notes

1. "Primary Care in Medicine: A Definition," Institute of Medicine, National Academy of Sciences, Washington, D.C.
2. John E. Fogarty International Center for Advanced Study in the Health Sciences, NIH; and the American College of Preventive Medicine, Preventive Medicine, U.S.A. (Washington, D.C., 1976).
5. Ibid.
Remarkable improvement and expansion in emergency medical service has occurred throughout the United States in the past decade or so. Federal, state, and local governments, as well as private institutions and various professional organizations, have all participated in developing a system for delivering prompt medical care to victims of accidents and sudden illness. As a result, thousands of lives are being saved every year by technicians and professionals trained in life-saving methods, using modern equipment and the resources of hospital emergency departments and specialized services.

While this achievement is recognized as significant in every way, and particularly so in the establishment and growth of related manpower training programs, it is also realized that much remains to be done, since high-quality emergency medical services are still not universally available.

The need for dynamic action to improve emergency medical care was called to national attention in 1966 by a National Academy of Sciences/National Research Council (NAS/NRC) publication, Accidental Death and Disability: The Neglected Disease of Modern Society. It disclosed a tragic story:

1. Accidents were the leading cause of death among Americans between ages one and thirty-seven and the fourth leading cause of death in all ages. Of all accidental deaths, automobile-related accidents were the leading cause for all age groups under seventy-five.

2. Unsatisfactory practices and deficiencies in emergency care were
cited as requiring early attention: overcrowded, outmoded hospi­tal emergency departments; limited research on trauma and shock; failure to exploit federal programs in accident prevention and emergency services; lack of cooperation between medical and health-related organizations in applying available knowledge to the treatment of trauma and in educating the public and informing the Congress.

3. Ambulance equipment and supplies were called inadequate. Approximately 50 percent of ambulance service in the United States was provided by 12,000 morticians whose vehicles, while fulfilling transportation needs, were considered unsuitable for active emergency care during transportation.

4. Lack of life-saving training among “first responders” at the scene of accidents and other emergencies.

Accidental Death and Disability recommended the extension of basic and advanced training to greater numbers of first responders, as well as the preparation of nationally acceptable texts, training aids, and courses of instruction. It also urged that all rescue squad attendants, police officers, fire fighters, “paramedical” workers, and workers in high-risk industries be trained in such techniques as cardiopulmonary resuscitation and emergency childbirth. Also recommended were improved training for ambulance personnel, the setting of standards for ambulance vehicle design and equipment, improvement of ambulance-to-hospital and interhospital communications, categorization of hospital emergency facilities, a national clearinghouse for emergency care information, and a national organization to study trauma.

This first NAS/NRC report, and a succession of reports that followed from NAS/NRC subcommittees and task forces, triggered many innovations in emergency health care, among them the development of the Emergency Medical Technician (EMT).²

Historical Development of EMTs

Before the development of the EMT as health worker, the first official personnel to arrive at scenes of accidents and sudden illnesses were usually fire fighters, police officers, and ambulance
EMERGENCY MEDICAL TECHNICIAN

attendants. These first responders had been taught a few emergency skills, primarily on the job; but their expertise was extremely limited. The vehicles they drove, often owned by morticians, were equipped with little more than stretchers, splints, and bandages.

In urban areas ambulance attendants were employed chiefly by hospitals and fire departments; in rural areas, by funeral directors. Their major functions included basic first aid learned in short courses provided by emergency services in hospitals and taught by physicians in emergency rooms. Emergency rooms in hospitals were staffed by interns and residents who served on brief rotations and were assisted by nurses.

Increasingly during this time fire and police departments recognized their roles as first responders to scenes of emergencies. Many fire departments, and to a lesser extent police departments, established emergency services using rescue vehicles with varying types of emergency equipment and supplies. Fire fighters and police officers were trained informally in short courses. In some cases these first responders were on long-term emergency service duty; in others, they served on a rotational basis. Many fire departments were staffed primarily by volunteers, who still constitute large portions of emergency medical service personnel.

By the 1960s some formal training courses for ambulance attendants were conducted in hospitals, medical schools, universities, colleges, health departments, and police and fire departments. In small communities and rural areas, where fatality rates from accidents were highest, ambulance attendants did not have access to these programs, and many were given no training or only the limited preparation that local physicians or small hospital staffs could offer with their limited facilities and equipment. Rarely was the ambulance attendant in an isolated area able to afford the time or expense needed to obtain formal training.

A major stimulus to the development of emergency medical service was the reported success by the armed forces in providing care to battle casualties and others acutely ill or injured. The use of enlisted personnel and highly sophisticated com-
munication and transportation equipment and materials was the rule in the military service; the civilian sector, by contrast, lagged far behind.

In 1968 NAS/NRC published *Training of Ambulance Personnel and Others Responsible for Emergency Care of the Sick and Injured at the Scene and during Transport.* This publication included recommendations by the NAS/NRC Committee on Emergency Medical Services (EMS) for training ambulance personnel at the basic level, followed by refresher and advanced training. These and subsequent recommendations were widely accepted by professional organizations, ambulance operators, and some federal and state agencies as standards for training EMTs.

In a review of more than seventy short courses of instruction, varying from a few hours to three days, and more than twenty textbooks on the subject, the NAS/NRC report noted a lack in uniformity or completeness of instruction. No course was found that covered all the subjects and guidelines recommended in the NAS/NRC report. Few courses required either the standard or advanced first-aid courses of the American Red Cross as a prerequisite; and although instruction generally included emergency childbirth, cardiopulmonary resuscitation, and the management of psychiatric emergencies, little attention was given to the operation of emergency vehicles, safety precautions at the scene of accidents, priorities of care, the use of communication systems, the use of equipment and supplies, medicolegal problems, rescue procedures, and preparation of records.

Although courses of more than a few hours were conducted by educational institutions, local fire and police departments, and individuals who traveled periodically to outlying communities, the most complete courses were those of the armed forces for training enlisted technicians, ambulance attendants, and combat corpsmen. In the civilian sector the most exemplary training was carried out through short courses conducted under the aegis of the Committee on Trauma of the American College of Surgeons and the Committee on Injuries of the American Academy of Orthopaedic Surgeons.
The NAS/NRC report revealed that only eighteen states regulated ambulance services. Of these only eight required instruction in the American Red Cross standard or advanced courses. Six states required instruction in first aid but did not prescribe the levels of training. It was recognized that superior ambulance services were rendered to only a small segment of the population by well-regulated public and private ambulance and rescue organizations whose personnel were highly trained, and that in some communities highly motivated volunteers or employees had attained high levels of proficiency. These groups, however, depended mainly on local physicians for training, and most often the level of proficiency attained was a reflection of the dedication and extra effort of individual instructors rather than of programs with stated objectives and planned competency-based curricula. The diversity and incompleteness of training courses, and the lack of guidelines by which to test proficiency or to regulate ambulance services, emphasized the need for nationwide standards, not only for the training of ambulance personnel but also for the equipment and vehicles used in the delivery of emergency care.⁵

Largely as a result of the NAS/NRC recommendations, a series of activities was carried out by various organizations and agencies which produced the Emergency Medical Technician-Ambulance (EMT-A), as the accepted basic-level worker in emergency medical services. Another major impetus in furthering the establishment of the EMT-A was the Highway Safety Act of 1966, which required the states to maintain highway safety programs in accordance with uniform standards established by the United States Department of Transportation (DOT).⁶ To assist in implementing the training requirement, DOT funded the development of a basic course as the first step in an extended program to increase the competence and professionalism of emergency personnel.⁷ This course became available in 1970; it was designed for eighty-one hours of instruction. It included an instructor's guide, lesson plans for instructors, and twenty-five lessons involving seventy-one hours of classroom instruction and ten hours of in-hospital observation and training. It is used in forty-seven states, Puerto Rico,
and the District of Columbia; three states have courses considered equivalent to the DOT program. Physician supervision, a course requirement, was a problem in some communities with few available or interested physicians, some of whom were willing participants but inexperienced teachers. The course requirement of in-hospital experience was not clearly defined and it therefore varies widely from program to program.

Police, fire fighters, and volunteer ambulance and rescue squad staffs occasionally resist the trend toward specialization of the EMT and standards of performance required of EMTs. A frequently expressed view is that the same standards should not be expected of them, since their services are only incidental to their major job responsibilities.

The National Registry of Emergency Medical Technicians. In response to a request from the President's Committee on Highway Safety, the National Registry of Emergency Medical Technicians was established in 1970 to attain recognition, occupational status, and uniform standards for EMT training. As of January, 1976, the Registry examination had been taken by 68,000 persons, and 51,000 had passed. The examination consists of 150 multiple-choice items and a practical performance segment. Eligibility to take the examination requires completion of the eighty-one-hour DOT course.

The practical performance portion of the EMT-A examination has been of concern to the Registry because of variations in the skills tested, variations in judging the quality of performance, and large differences in pass-fail ratios in different localities. To obviate these problems, the Registry—through a contract awarded by the Division of Associated Health Professions, Bureau of Health Manpower, Health Resources Administration, HEW—developed a practical performance examination originated by the Department of Medicine, University of Southern California, in which simulated patients are required to act out specific emergency problems. These "patients" are made up in the manner of actors; examiners use a prepared checklist to observe the actions of the candidates in a time sequence; and provision is made for "patient" com-
ments on the examiners' sheets. The scores are provided to an examining board of two or three EMT experts who review the observation sheets and determine whether the candidates pass or fail. This method of conducting the practical examination is described in a ninety-minute videotape and an accompanying guide.

The Registry recently established the EMT-Ambulance Recertification Registry for the reregistration required every two years. Reregistration requires completion of 100 points which can be attained by a combination of activities selected from among fifteen categories, each with varying point values, that include the options of completing specified types of courses, in-service training, attendance at workshops and seminars, and actual specified types of work. A refresher training course developed by DOT, which includes twenty hours of training, has a value of sixty credit points.

Definitions, Roles, and Functions of EMT-As

EMTs with varying levels of training are performing emergency medical services. Two levels are recognized by the National Registry: the Emergency Medical Technician-Ambulance (EMT-A), which is the basic level, and the Emergency Medical Technician-Advanced (EMT-Paramedic); a variety of other designations are applied in different geographic areas and settings. Ambulance attendants are not EMTs and receive only minimal training. But persons in other types of jobs also provide emergency care along with their primary job responsibilities. These first responders include fire fighters, police officers, lifeguards, beach safety personnel, ski patrol staff, and forest rangers, as well as some workers in high-risk industrial settings. When these persons have passed the Registry exam they are considered EMTs along with their primary occupational titles.

EMT-As are competent in basic emergency care methods—methods which do not violate body integrity. They have a low probability of inflicting harm and a reasonably high probability of limiting disability and/or minimizing suffering. They
must provide care safely and effectively without immediate, direct, or intensive medical supervision. Basic emergency care includes triage, noncannulating airway control, intermittent positive pressure ventilation using exhaled air methods and adjunctive devices, use of installed and portable oxygen and suction systems, external cardiac compression, control of surface hemorrhage, splinting spinal and long bone fractures, recognition and emergency management of life-threatening medical emergencies (for example, stroke, acute myocardial infarction, poisoning), emergency care of emotionally disturbed persons, light rescue operations, extrication from entrapment, and assisting with emergency childbirth.

The estimated number of EMTs graduating annually from various schools of training increased from 32 in 1965–66 to over 20,000 in 1977. The summer 1976 issue of the Department of Labor publication *Occupational Outlook Quarterly* estimates that in 1975 there were 360,000 persons, mostly men, working as EMTs. About half were volunteers on rescue squads which for the most part were associated with, or worked closely with, local fire departments. Most women EMTs, for which no data are provided, were volunteers. Many EMTs are employed by police and fire departments and private ambulance companies, which in many instances work on contract with local political jurisdictions. Funeral homes still provide ambulance services in some communities and employ a substantial number of EMTs. An increasing number of EMTs are employed in ambulance services operated by hospitals.

The National Highway Traffic Safety Administration describes the EMT as an individual who responds to emergency calls to provide efficient and immediate care to the critically ill and injured and transports patients to a medical facility. Although many duties and functions are involved, essentially the EMT drives or rides the ambulance to a given location, enlists the assistance of persons available to create a safe traffic environment, determines the nature and extent of illness or injury, and establishes priority for required emergency care. The EMT renders emergency care and administers drugs,
including intravenous fluids, as directed by a physician. The EMT reassures patients and bystanders, avoids mishandling and undue haste, assesses the extent of injury, gives emergency care and protection to entrapped patients, and uses prescribed techniques and appliances for removing patients safely. Through radio contact the EMT reaches his dispatcher for additional help if needed. During transit, the EMT constantly observes the patient and administers additional care as indicated or directed by a physician. For diagnostic and record-keeping purposes, the EMT presents verbal and written reports to the emergency department staff on his observations and care of the patient at the emergency scene and in transit.

To enter an EMT-A training program, applicants must have a high school education or equivalent and must be at least eighteen years of age. The minimum training is the eighty-one-hour DOT course or its equivalent.

The summer 1976 *Occupational Outlook Quarterly* reported that employment of EMTs is expected to grow much faster than the average for all occupations. Numerous positions for full-time EMTs were expected to open up as more communities changed from volunteer to paid ambulance services. Salaries depend on the types of employers, training, and experience of the individual EMT, and on geographic location. In general, graduates of approved eighty-one-hour training programs received starting salaries between $7,500 and $9,000 in 1975. EMTs working for police and fire departments were paid the same salaries as police officers and fire fighters. A few volunteer EMTs were paid small amounts for being on call, although most volunteers were not paid.

EMTs employed by fire departments often worked a fifty-six hour week. When employed by hospitals, private firms, and police departments, they usually worked forty hours a week. Since emergency services must operate around the clock, some worked nights and weekends. Although registration was not a general requirement for employment, it was often used as a measure of an EMT's qualifications, and facilitated the attainment of jobs with the better salaries.
The Advanced Emergency Medical Technician (EMT-Paramedic)

When the NAS/NRC Committee on Emergency Medical Services published recommendations and guidelines for training of ambulance personnel in 1968, it also stressed the need for training at an advanced level. Advanced emergency measures at this time were being applied by a relatively few non-physician personnel in civilian emergency departments and by medical corpsmen in the armed forces, especially in combat. About a dozen medical centers independently had established advanced-level programs requiring several weeks or months for completion.\(^{11}\)

In 1970 a task force of the NAS/NRC committee reviewed existing training programs and recommended a 480-hour instructional program to develop EMT competence in advanced life support. These recommendations formed the basis for a course guide developed under a contract awarded by DOT. This course was then tested at ten sites. Along with newer knowledge developed over a five-year period, the task force produced a 1975 status report, *The Advanced Emergency Medical Technician (EMT-Paramedic)*, which established guidelines and made recommendations regarding nomenclature, definitions, competencies, and other topics. This report undoubtedly will serve for several years as a basic guide for development of the EMT-Paramedic.

The rapid development of knowledge and new types of equipment have broadened the capacity for timely intervention to prevent death and disability. Although EMT-As are competent in basic methods, advanced EMTs can perform functions which can prevent life-threatening and disability-producing situations. Some believe that persons at the advanced level will be required at all emergency sites; in another view, however, salaries that are likely to be commanded by advanced EMTs will be so high that a cost factor will limit the numbers trained and their deployment.

Recognition of the need for the advanced level has come from such organizations as the National Registry of Emergency
Medical Technicians; the Commission on Emergency Medical Services of the AMA; the Division of Emergency Medical Services of the Health Services Administration, Public Health Service, HEW; and the National Highway Traffic Safety Administration, DOT.

Materials for training advanced EMTs have been developed by the Department of Anesthesiology/Critical Care Medicine, University of Pittsburgh, through a contract with DOT. These include a curriculum guide, instructor lesson plans, and an extensive manual designed for student use. Sixteen modules were developed around body systems and modes of treatment for emergency conditions; also included are modules on obstetric/gynecological emergencies, emergency care of the emotionally disturbed, rescue problems, telemetry and communication, and clinical training.

Several steps toward the accreditation of advanced EMT education programs have been completed. The AMA Council on Medical Education in 1975 recognized the advanced EMT as an emerging allied health occupation. The AMA Advisory Committee on Education for the Allied Health Professions and Services, in collaboration with other organizations, developed minimum essentials for educational programs. Several national organizations which were involved in the drafting of essentials are considering collaboration in the accreditation of educational programs.

The NAS/NRC Status Report recommended the development of a certification examination for the EMT-Paramedic and included a thirteen-page statement of “General Competencies.” The National Registry, through a contract with the Emergency Services Department of the University of Kansas Medical Center has developed and pilot-tested at three sites a written and practical examination which was based on the curriculum developed by the University of Pittsburgh. The test has been administered to 130 persons in Minnesota. The AMA Commission on EMS and the National Registry are interested in developing nationally applicable certification examination for the EMT-Paramedic.
MAJOR FEDERAL GOVERNMENT SUPPORT PROGRAMS

Until 1966, the federal government had no specific programs for emergency medical services. But from that year on, federal support became a vital factor in the national effort to deal with emergency health care. Following are some of the federal measures:

1. The Highway Safety Act of 1966, administered by DOT, provided for a coordinated national highway safety program through financial assistance to states on a matching basis to increase and improve highway safety programs. States were required to maintain programs in accordance with uniform standards established by DOT. These include: (a) surveys of emergency medical services resources; (b) development of comprehensive emergency medical services plans at state and local levels; (c) emergency medical personnel training; (d) assistance in purchase of ambulances and equipment and in the operation of ambulance services; (e) emergency communication equipment; (f) helicopter use; (g) collection and evaluation of data on emergency medical services. In the implementation of the training requirement, DOT has contracted to develop curricula and related materials for basic and advanced EMTs. The Highway Safety Act, through matching grants to states, provided for the use of funds to support training programs. These funds have totaled about $6,800,000 annually.

2. The Emergency Medical Services Systems Act of 1973 and the Emergency Medical Services Amendments of 1976 provide for federal financial support, technical assistance, and encouragement of improved emergency medical services throughout the country. The act defines an emergency medical services system as one “which provides for the arrangement of personnel, facilities and equipment for the effective and coordinated delivery, in an appropriate geographical area, of health care services under emergency conditions (occurring either as a result of the patient’s condition or of natural disasters or similar conditions) and which is administered by a public or nonprofit private entity which has the authority and the resources to provide effective administration of the EMS System.”

Under this act grants are awarded to establish or improve emergency systems through feasibility studies and planning
grants, establishment and initial operation grants, and expansion and improvement grants. Recipients are required to concentrate on fifteen specified components of an emergency medical services system, including provisions for personnel and training. Since 1973, of the 300 state-designated EMS regions 264 have received grants for planning, implementation, and expansion of emergency medical systems.

3. The National Center for Health Services Research (NCHSR), in the Health Resources Administration, HEW, is responsible for developing and administering the Emergency Medical Services System (EMSS) research program in EMS techniques, methods, devices, and delivery.15

4. The Bureau of Health Manpower (BHM), also in the Health Resources Administration, HEW, is responsible for administering Section 789 of the EMSS Act which provides for training of physicians, nurses, technicians, and other health care professionals. Recent amendments to the EMSS Act limit BHM responsibility to long-term training programs, i.e., programs other than basic training of EMTs and other health care professionals. Applicants for EMSS grants must develop a plan to provide for the training, including clinical training, of specialized and allied health professional staff and for their continuing education through training provisions of the act.

5. The Division of Associated Health Professions (DAHP), Bureau of Health Manpower, Health Resources Administration, through special project and special improvement grants, awards programs in EMT training on basic and advanced levels. DAHP also supported a project carried out by the National Registry of Emergency Medical Technicians to develop an improved method for testing EMT-A candidates in the practical performance portion of the Registry examination.16

EMT Organizations

Although national organizations are engaged in EMS activities serving a variety of purposes and functions, a few are devoted exclusively or predominantly to the training of EMTs. These include:

The National Association of Emergency Medical Technicians, organized in 1975 by representatives of eight existing
EMT organizations, including the National Registry of Emergency Medical Technicians. A requirement for membership is successful completion of the National Registry examination. The association plans to charter affiliates in all fifty states.

The National Association of Emergency Paramedics, organized in 1974 to promote recognition of paramedics as professionals. Applicants must be active paramedics and provide evidence of advanced training. Association objectives include standardization of the training of paramedics, strengthening of relationships with EMS professionals, public awareness of the paramedic's role, and continuing education.

The American Association of Trauma Specialists, recently established, which enrolls several types of emergency medical personnel including physicians, pharmacists, physician assistants, and registered EMTs. A major objective is the establishment of standards for paramedic and physician assistant training programs, standards for textbooks and training aids, and improvement of pay scales for EMS personnel. The association publishes a bimonthly magazine, Pulse.

**INFORMATION AND PROGRAM RESOURCES**

**Nongovernmental Resources.** The Emergency Care Information Center at Wilton, Connecticut, produces on a subscription basis a national publication source for information and materials. This publication is a looseleaf binder to permit updating and adding of new materials. Included in the binder are copies of the bimonthly newsletter, EMS Communicator, and a section on EMS agencies and organizations.

**Federal Government Resources.** The Division of Emergency Medical Services (DEMS), Health Services Administration, HEW, administers the major portion of the Emergency Medical Services System Act which provides for support of planning, establishment, and improvement of emergency medical systems. Central office staff, as well as HEW regional office personnel, serve as administrators, consultants, and information resources for emergency services organizations. Within DEMS, the National Clearinghouse for Emergency Medical
EMERGENCY MEDICAL TECHNICIAN

Services collects and disseminates information about emergency medical services and serves as a resource for bibliographic reports, research studies, surveys, journal articles, and related documents. The Clearinghouse address is P.O. Box 911, Rockville, Maryland 20857. DEMS serves as the major federal focus for EMS and provides staff for the interagency committee on EMS, which consists of representatives of federal agencies and four public members. This committee advises the Health Services Administration on the adequacy and technical soundness of all federal programs and activities which relate to emergency care.

The National Highway Traffic Safety Administration, Emergency Medical Services Branch, DOT, implements provisions of the Highway Safety Act of 1966, including Standard 11, titled "Emergency Medical Services." Funds are provided to states for the conduct of highway safety programs. The governor of each state must appoint a person who is responsible for establishing and implementing a state plan. Provisions are made for the support of various kinds of training programs and materials. Representatives of DOT are located in ten regional offices throughout the nation.

EMERGENCY MEDICAL SERVICES AND EMT TRAINING—PAST, PRESENT, AND FUTURE

On the basis of major developments in emergency medical services over the past decade and a half, and through discussions with leaders in the field of emergency care, some trends, emerging issues, and problems can be discerned.

The major federal government thrusts, such as the National Highway Safety Act of 1966 and the Emergency Medical Services Systems Act of 1973 with 1976 amendments, have stimulated the development of all facets of emergency care, and the momentum is likely to continue. Development and expansion will in turn serve to stimulate additional training programs and increasing numbers of trained professionals, including EMTs on both the basic and advanced levels.

Although EMTs on the basic level are trained to provide
basic life support, some professionals feel that the eighty-one-hour basic training programs, leading to EMT-A credentials, require upgrading to take into account newer knowledge and newer technology. The movement toward upgrading is already under way by the National Registry, which requires continuing education credits leading to reregistration every two years. The newly developed curriculum for the EMT-Paramedic is designed in a modular format, so that it can be used by EMTs at the basic level who complete individual modules and thereby enhance their capabilities.

The EMT has moved forward significantly from a minimally trained ambulance attendant to a trained professional. The increasingly important role of the EMT as the essential link between care at emergency sites and definitive care is gaining wide public and professional attention. The advanced EMT is certainly at an educational and training level comparable to many other allied health professionals. It can be anticipated that the rapid expansion of advanced EMT programs in junior/community colleges will continue to accelerate; since many of these institutions already conduct allied health programs, the addition of EMT training seems appropriate. Junior/community colleges grant broadly recognized academic credit, thereby facilitating career mobility into other health training programs and to different geographic locations.

With the development of the EMT-Paramedic it is likely that training programs also will be developed in senior colleges. Graduates of some four-year programs most likely will be trained as administrators of programs and as supervisors and teachers. In some cases advanced EMTs may go on to become physician assistants.

The advanced EMT is still developing and will require well-organized didactic and clinical experiences consistent with standards in those accredited programs which are currently associated with schools of allied health professions. It is likely that the advanced EMT training program will be offered increasingly in allied health training centers and junior/
community colleges throughout the country. Schools of allied health professions will be in an advantageous position to establish EMT programs through utilization of their capabilities for training in the basic sciences and through clinical facilities with which they have formal relationships.

Physicians should be involved in both the didactic and clinical training of advanced EMTs and, therefore, there will be a strong concern to include them on faculties, probably on a part-time basis. Physicians who are already employed in hospital emergency departments will no doubt participate in the training of advanced EMTs.

At this stage of development of EMTs as a profession there is little evidence of participation in the mainstream of allied health education and training. EMT educators and administrators have not yet participated significantly in allied health professional groups or in groups with special concerns, such as credentialing and curriculum development.

Some thought will need to be given to the current and future roles of physician assistants (PAs) in emergency care. In current training programs, emergency care is one of the clinical rotations for PAs, some of whom are employed full time in emergency services departments. Their basic training and expertise seem especially appropriate to emergency services, and the cost-effectiveness of their employment in some settings seems worthy of exploration.

When PAs are employed in emergency departments, their ongoing responsibilities provide them with extensive practice, so that their emergency skills are sharpened and new skills are learned. The dispatch of PAs to emergencies by ambulance might be an effective use of their knowledge and skills in some settings.

Great variations exist in emergency medical services systems. In some, heavy reliance is placed on first responders; others rely on groups, including EMTs on both the basic and advanced levels. In still other systems trained volunteers provide most of the services. Questions arise about utilization patterns
and measures of effectiveness. Cost-benefit studies will be required to determine the optimal mix of emergency service personnel.

Attrition rates for basic-level EMTs appear to be high. Some directors of emergency care systems note that EMTs leave jobs because of inadequate salaries. Others suggest the need for greater care in selecting EMT candidates. Still others suggest a need to encourage career mobility.

Among the most critical elements of any emergency incident is the interval between the occurrence and the presentation of the patient to an appropriate facility for definitive care. Although some research has begun on EMT roles and functions, there is need for careful study of the applications of knowledge and skills. Although the rigors of effective research and the attendant costs will be likely deterrents, it is fortunate that the need for this research has been recognized in the EMSS legislation. Many competent researchers have established themselves in this field and have identified the problems to be encountered. Difficulties of good research and limitations of research funds should not deter planning for emergency care and related training programs.

A large proportion of incidents which are perceived as emergencies are seen as routine by professionals. In this regard, hospital emergency departments, especially in cities with large populations of low socioeconomic-educational status, provide services which fall within the definition of primary care rather than emergency care. In future developments in health care delivery, such as health maintenance organizations and neighborhood health centers, access to primary care will be increased. With greater availability of primary care, there will be a corresponding lessening of services currently rendered in some emergency departments.

Throughout most of the literature on emergency medical services, including publications of NAS/NRC, very little attention has been directed to prevention. Yet many observers of health care systems recognize that preventive measures are
the most likely to reduce morbidity and mortality. One example of a fairly dramatic reduction has been achieved through the lower nationwide automobile speed rate of fifty-five miles per hour.

Further reductions in highway accidents might result from controlling the numbers of drunken drivers, who are responsible for about 50 percent of all highway fatalities. Accidental deaths and injuries can be reduced through the use of better engineered vehicles, passenger safety measures, improved highway design, and higher qualifications for a driver's license. Contributions to safety can also be achieved through less use of individual vehicles and more attention to mass transit.

Although a great reduction in highway accidents is an achievable goal, there is an amazing lack of public concern. Education as an essential feature ultimately must be recognized by the public, political leaders, and professionals if new directions are to be followed.

Notes


4. NAS/NRC, Committee on Emergency Medical Services, Division of Medical Sciences, Training of Ambulance Personnel and Others Responsible for Emergency Care of the Sick and Injured at the Scene and during Transport (Washington, D.C., 1968).

5. NAS/NRC Task Force on EMTs, Advanced EMT-Paramedic.


12. NAS/NRC, *Roles and Resources of Federal Agencies*.


15. HEW, Public Health Service, Health Resources Administration, National Center for Health Services Research, *Emergency Medical Services Systems Research Projects*.


17. Emergency Care Information Center, P.O. Box 457, Wilton, CT 06897. *MEDICAL 911*.


20. HEW et al., *Research Projects*.
CONSUMER HEALTH EDUCATION:  
A NEW-OLD CHALLENGE 
TO ALLIED HEALTH EDUCATION

Anne R. Somers

On June 23, 1976, President Ford signed into law Public Law 94-317. Title I, the National Consumer Health Information and Health Promotion Act of 1976, provides for a national program of "health information, health promotion, preventive health services, and education in the appropriate use of health care." The Secretary of Health, Education and Welfare was instructed to formulate national goals and a strategy to achieve such goals with respect to these four broad areas. The law also called for a new Office of Health Information and Health Promotion within the Office of the Assistant Secretary for Health (OHIHP) with authority to coordinate all relevant HEW activities and to establish a national health information clearinghouse and analytical center.

The funds authorized for these demanding responsibilities were pitifully small and disproportionate to the magnitude of the task—$31 million for three years beginning fiscal 1977. (Compare this figure with the $40 million six-month budget, announced by the Reynolds Tobacco Company in May 1977, for the promotion of its new cigarette, REAL!!) A token OHIHP was established in November with some $200,000 in internally transferred funds. As of May 1977, however, the

new administration at HEW—despite expressed interest in health promotion and health education—had requested no further funding for OHIHP. Its future is uncertain.

The significance of P.L. 94-317, however, goes beyond the fate of this particular office and the modest sums involved. For the first time, the federal government is on record as recognizing the crucial roles of individual knowledge, responsibility, and behavior in determining personal and national health status. The potential has been provided for forging one of the major missing links in United States health policy.

The series of events leading up to enactment of the new law includes establishment of the President's Committee on Health Education in 1971 and publication of its report in 1973;\(^2\) establishment of a small Bureau of Health Education in the Department of Health, Education and Welfare's Center for Disease Control in 1974; appointment of the Task Force on Consumer Health Education by the NIH Fogarty International Center and the American College of Preventive Medicine in 1974 and adoption of its report by the National Conference on Preventive Medicine in June 1975;\(^3\) the significant emphasis on health education in the Department's *Forward Plan for Health, 1976–1980*; and finally a series of congressional initiatives, based on the Task Force recommendations and embodied in bipartisan bills sponsored by Senators Kennedy, Javits, and Schweiker, and by Congressmen Rogers, Carter, Cohen, and others. P.L. 94-317 was the product of a creative and all-too-rare cooperative effort between the executive, the Congress, and the private sector. All told, passage came only nineteen months after the Task Force's first meeting and twelve months after the National Conference on Preventive Medicine.

The reasons for this unusually rapid social consensus were many and not difficult to identify. Most important was the growing skepticism as to the efficacy of almost exclusive reliance on curative services in existing United States health policy and the fantastic rise in the costs of the services. A few years ago it would have been necessary to preface an article such as this with documentation of the relationship between smoking,
overeating, lack of exercise, failure to use seat belts, and other examples of health-threatening individual behavior and the incidence of disease or disability. This is no longer necessary, at least for the sophisticated.

Even two or three years ago, it would probably have shocked the medical world to read an editorial in the Journal of the American Medical Association, signed by its editor, stating: "Many people mistakenly believe that health care is synonymous with medical care. Health is, to a large degree, a matter of personal responsibility that must be exercised within the limits of genetic endowment. . . . As a general rule . . . medical care has relatively little impact on health. Measurements that supposedly reflect health, such as morbidity, longevity, growth, and development, are not measures of the quality of medical care being received."4

Along the same line, the president of the American College of Physicians said recently that there was no evidence that death and sickness rates in South Dakota, with 75 physicians per 100,000 population, were any worse than in Massachusetts, with 200 per 100,000, thus agreeing in effect with similar statements made earlier by economist Victor Fuchs and others.5

Obviously, not all physicians and other health providers or all consumers accept this view. Our vast multibillion-dollar health care system is still overwhelmingly oriented to curative medicine, and reorientation will not come overnight. We have given too many hostages to fate. We have built up a health care industry which is one of the nation's primary employers, with close to five million people dependent upon it for their livelihood. The billions of dollars that some of us view as at least partially redundant expenses, taxes, and/or health insurance premiums represent essential wages and salaries to others. Trying to close down an unneeded hospital is like trying to close down an obsolete military base. By contrast, prevention and health education lack any comparable political constituencies. Ironically, the very speed with which P.L. 94-317 was enacted may have contributed, by bypassing the extended adversarial debates which usually characterize the initiation of important new policies.
Another part of the problem involves intragovernmental rivalries and politics. Not surprisingly, bureaus and agencies, with some current or past interest in health promotion and/or health education, were not eager to be "coordinated" by some higher departmental authority. The new administration at HEW may also have had some special reasons for lack of interest in the new law.

Moreover, not everyone who accepts the limits of therapeutic medicine accepts the corollary that prevention in general and health education in particular are likely to be effective. However, the principal questions that are now being asked with respect to health education are significantly different from those of the immediate past: Can anything be done about the risk factors that are now so deeply ingrained in the American life-style? Granted the relationship between individual health-threatening behavior and illness, are the odds serious enough to evoke public support for real remedial action? Haven't traditional approaches to health education been notoriously ineffective? Is there any evidence to justify faith in, or support for, a major new thrust in this direction?

Obviously, this is not the place to do justice to all these important questions. It may be some time before all the complex political strings and strands are sorted out. But there can be no doubt as to the increasing demand for large-scale programs aimed at the behavioral and life-style aspects of disease and disability and their ever-increasing costs. Following are a series of assertions, which may appear more dogmatic than they are intended to be, but are based on, and documented by, the Consumer Health Education Task Force Report.

THE BASIC RATIONALE FOR CONSUMER HEALTH EDUCATION

1. A new and far more demanding definition of health education is a prerequisite to any effective new strategy. I suggest the one adopted by the National Conference on Preventive Medicine: "Consumer health education is a process that informs, motivates, and helps people to adopt and maintain
healthy practices and lifestyles, advocates environmental changes as needed to facilitate this goal, and conducts professional training and research to the same end."

2. Health education can and should be conducted by a variety of health, education, and communications personnel and in a variety of settings. The classification system adopted by the National Conference included patient education, school health education, occupational health education, national health agency programs, community programs, and media programs. All are essential to a well-rounded national strategy.

3. Practitioners of each category of program can point to a few well-documented success stories that can be interpreted as having reasonably wide application to similar programs.

4. The best documented examples and the best chance of success involve programs directed at individuals who already have some strong motivation: patients with a chronic illness or a disability, those facing an acute crisis such as surgery or childbirth, or employees whose livelihood may depend on overcoming alcoholism or some other job-threatening condition. This suggests that probably the quickest payoff will come in the area of patient education.

5. The effectiveness of programs directed to school children or to the general asymptomatic public is far more difficult to measure. With respect to adults, the modest gains registered in the past decade with respect to smoking and coronary disease are encouraging.

6. School health education is probably the least effective today and probably the branch of health education least influenced by new developments in the field, including the entry of new types of professionals.

7. If health education and behavior-change programs are to be generally effective, especially for the asymptomatic, they must be accompanied by firmer professional guidance and by national policies and mass communications programs designed to reinforce, rather than undermine, the message of health education. The results of the important Stanford Heart Disease Prevention Program are particularly signif-
significant in demonstrating the need for mutual reinforcement between individual and mass communications efforts.  

8. Health education should become an integral part of health care at all levels—primary, secondary, and tertiary. Educational protocols for preventive medicine in primary care, and for the major diagnostic categories should be developed, applied, evaluated, validated, and finally integrated into Professional Standards Review Organization (PSRO) criteria and other professional criteria. Patient and community education programs should be required of all hospitals as a condition of participation in Medicare, Medicaid, and any future national health insurance (NHI) programs. Third-party reimbursement for patient education and public or other funds for community programs should be assured.

**Some Implications for Professional Education**

Since health education is not a single discipline but a "field of interest," drawing on knowledge from the biomedical, biostatistical, and behavioral sciences, as well as various administrative, planning, teaching, and research skills, it is not possible at this time to define future manpower requirements with precision. Of the numerous disciplines and would-be disciplines involved, it is not now possible to say which will emerge as dominant a decade from now.

As a pragmatic matter, the field can be divided into two groups: (a) health education specialists, i.e., individuals who have a degree from an accredited academic program in health education, who see their role primarily as applying expertise in educational theory and methodology to health problems, and are employed full time in this type of work; and (b) all others, physicians, nurses, nutritionists, etc., who are engaged in carrying out one or more of the functions set forth in point 1 above.

The first group is, obviously, very much smaller than the second. It has been estimated by Dr. Scott Simonds, director of health education programs, University of Michigan, to include
about 12,500 persons, of whom over 10,000 are in school health education and no more than 2,000 in community or public health education. ⁷

Using the same numbers, Dr. Lawrence Green, head, division of health education, Johns Hopkins University School of Hygiene and Public Health, calculated that we have only one health education specialist for over 16,800 persons in the population, compared with one active physician for 648 and one nurse for every 281. ⁸ After surveying the growing demand for health educators implicit in the new legislation and programs, he concluded: “The estimates of future manpower needs for health education specialists exceed those of all other public health and post-baccalaureate medical specialties.”

There is no question that the number of health educators will have to be greatly expanded and their education considerably enriched if they do not wish to see this burgeoning field taken over by others.

To study the whole problem of health education manpower in depth, the Task Force recommended a high-level study by HEW “to determine current and future needs for all categories and levels of personnel and to recommend appropriate educational and credentialling policies.”

Within this general requirement, three areas have special urgency: (a) development of research personnel, both M.D.’s and Ph.D.’s, capable of advancing behavioral sciences to the point of assuming greater effectiveness in health education methodologies; (b) better and more systematic training of physicians, nurses, and other health care personnel in health education theory and practice, including more attention in continuing education; and (c) clarification of the role of the health education specialist and adjustment accordingly in the numbers being trained and the skills being acquired.

One approach to point (b) is being explored at the federal level by an Inter-Agency Work Group on Training of Physicians for Patient Education (TOPPE). According to a May 1976 program description, TOPPE’s primary target audience is trainees in family practice. Membership consists of repre-
sentatives of the American Academy of Family Practice and the Society of Teachers of Family Medicine as well as eight federal agencies or bureaus.

An experimental program, which addresses portions of both points (b) and (c), was conducted during the summer and fall of 1975 by the Office of Consumer Health Education of the College of Medicine and Dentistry of New Jersey in cooperation with Montclair State College, Upper Montclair, New Jersey. Directed primarily to the rapid development of hospital based "health education coordinators," the program was attended by twelve experienced professionals, including three health educators, four nurses, three dental hygienists, one urban health planner, and one member of the staff of a voluntary health agency. Financed by a grant from the New Jersey Regional Medical Program, the results have been evaluated. Portions of the program are already being incorporated into the undergraduate and graduate health education curricula of other New Jersey colleges.

In June 1976, the NIH Fogarty-American College of Preventive Medicine Expert Panel in Consumer Health Education, successor to the original Task Force, reaffirmed the latter's request for a high-level HEW study and recommended the following implementing or additional steps:

1. The Panel should forward an official request to the Secretary of HEW to initiate the studies of health education manpower, including:
   a. Studies of numbers, distribution, and preparation in health education of major health disciplines;
   b. Studies of numbers, distribution, and preparation of individuals prepared for careers as specialists in health education.

   As part of these studies, the Secretary or the Director of the Office of Health Information and Health Promotion should encourage development of modules for the health education training component in the curricula of various health professions and for different levels of training for health education specialists, including research specialists in health education.

2. The Panel should seek the addition of health education to the list of specialties to be supported under Sec. 783 and 784 of the
Health Professions and Educational Assistance Act of 1976 (S. 3239). . . .

3. The National Center for Health Education should be requested to appoint a Health Education Credentialling Commission consisting of representatives of the relevant professional organizations and of the public. Its functions should include:
   a. Reviewing existing functions and standards related to health education practice for each of the relevant disciplines and professional groups;
   b. Negotiating revisions in statements of functions and standards of professional groups that are in conflict with, or not sufficiently complementary to, those of other professional groups;
   c. Maintaining liaison with the Council on Education for Public Health and other accrediting bodies to help develop the application of professional standards in accreditation reviews of training institutions;
   d. Maintaining liaison with credentialling and licensing groups in the health and educational professions for the same purpose.

The challenge to health education, implicit in the current rethinking of the basic assumptions underlying United States health policy for the past quarter-century, is enormous and unprecedented in the history of the profession. Are health educators and the educational institutions responsible for their training prepared to rise to this challenge?

Notes


In a recent survey by C. E. Lewis in the *New England Journal of Medicine*, the utilization of nonphysicians, including the nurse practitioner, was identified by some members of the Institute of Medicine as the second most important innovation in health care delivery of the past quarter-century (the most important being organizational innovations such as health maintenance organizations).\(^1\)

Yet just twelve years ago, the name *nurse practitioner* had not been applied to those engaged in a form of nursing preparation and practice once considered deviant. Today the nurse practitioner is rapidly becoming the accepted norm for professional nursing. Undergraduate and graduate educational programs are integrating concepts of the nurse practitioner into curricula. Nurse faculty are being retrained for the practice and teaching of the practitioner role. Financial support for these educational programs from federal and state governments and from foundations has expanded rapidly. State practice laws have been altered to accommodate expansion in the scope of nursing practice. The health care delivery system itself has been challenged to reorganize and change. All these developments and more have occurred in one short decade. What forces brought about the emergence of the nurse practitioner? What is the nature and scope of the nurse practitioner's role? What impact has the nurse practitioner made on nursing, health care delivery, and other systems? What is the outlook for the future of the nurse practitioner?
The Emergence of the Nurse Practitioner

The forces that brought the nurse practitioner into being were both social and professional in nature.

In the social sphere there were increased demands for individual rights, equality, and involvement; there was concern for the quality of life; there were questions about the allocation of the nation's resources and about the increasing technological advances without adequate attention to humanistic values. The ferment of the sixties had an impact upon every institution of the society, including the health care system. Demands for accessibility, availability, acceptability, and accountability challenged institutions and individual providers of care to be responsive to the latent and emerging needs of all people.

For professional groups, the chaotic condition of the times was both depressing and opportune. The depressing aspect was the realization that societal demands for comprehensive health care for all people could not be met with the resources at hand nor could additional resources, particularly in medical manpower preparation, be generated quickly. Most of the services and manpower resources being provided were for care of the sick. Despite the knowledge that only 10 percent of the population, which was over the 200-million mark by then, was hospitalized at any one time, few resources had been allocated to the development of ambulatory care and preventive services to maintain health. Research efforts were supported primarily for biomedical investigations. Important as all of these were (and are), the realization that imbalances existed has only lately come to some professional groups and society at large. That realization and the chaotic nature of the times, however, provided opportunities for professional groups to respond to internal needs and simultaneously meet external needs as well. The nursing profession was one of these groups.

Nurses formed the largest professional group providing health care, and nursing was becoming increasingly professionalized. Emphasis was placed on the development of nursing as a professional service concerned with its scientific base for practice, ready to be accountable to a constituency of well
and sick people, and demanding equal membership on the health care team. Role changes in nursing were inevitable. The preparation of clinical specialists in master’s level nursing programs also gave impetus to the development of the nurse practitioner. Though the clinical specialist role was an emerging one in the early sixties, nursing faculties in thirteen western states, which formed the Western Interstate Commission on Higher Education, had been collaborating in a study to define the role in their respective specialties for the purpose of constructing graduate curricula. The writer was a member of a specialty group investigating concepts for community health nursing preparation and practice, and, with the evolvement of the nurse practitioner, was to become codirector of the first nurse practitioner demonstration project in 1965.

The social atmosphere provided an unusual opportunity to test a new role for professional nurses. Other professions, notably medicine, were experiencing societal pressures, and some physicians began to recognize the need for changes in health care delivery. In the sixties, selected members of the two professions worked together to define new roles for both. The pediatric nurse practitioner project reported by Ford and Silver in 1967 was among the first to test a new expanded role for professional nurses.

The first pediatric nurse practitioner demonstration project, funded by the Commonwealth Foundation, had been initiated at the University of Colorado Medical Center in 1965. This five-year project was designed to prepare professional nurses to provide comprehensive well-child care in noninstitutional settings and to study the program outcomes for their applicability for curriculum changes in collegiate nursing programs. As part of their learning experiences in the project, the nurses were taught to make sophisticated clinical judgments about the health/illness states of acutely ill and chronically ill children and to perform adequately in children’s emergencies. Two phases characterized the project. In Phase I, nurses received intensive theoretical and clinical training in a four-month course at the Medical Center and in its community clinical laboratories. The nurses, all of whom had baccalaureate
or higher degrees, learned to assess the physical and psychosocial development of children, manage common childhood problems, counsel and teach patients, perform certain developmental immunological and evaluative procedures, and utilize appropriate community resources as new role models. Community cultural values and family development and dynamics were emphasized throughout the program. Phase II was a practice and research period.

The joint sponsorship and cooperative efforts of selected faculty members in the schools of nursing and medicine, the cooperative planning of the educational institution with community agencies and private medical services, and the recognition of the nurse's potential contribution in the expanded role within these systems made the Colorado project particularly distinctive. Though concerns originally were to provide health services to relatively isolated deprived rural populations, it soon became obvious that urban populations were deprived also. The first project nurse was placed in rural southern Colorado; later, with the development of an urban project in child care and the cooperative efforts of the Denver Visiting Nurse Service, many nurses were placed in health stations and neighborhood health centers in the city of Denver. Soon pediatricians' offices became testing grounds for this new role. It was found that private patients had as many unmet health needs that could be adequately served by pediatric nurse practitioners as did patients receiving public services.

**Nature and Scope of Nurse Practitioner Model**

The model of practice was designed conceptually from the pronouncements of the nursing profession identifying the idealized role as: (1) focused on the direct care of people; (2) oriented to holistic concepts in delivering health care; (3) independent and autonomous in nursing practice; (4) collegial in interdisciplinary team relationships; (5) accountable to the people being served; (6) supportive of investigating clinical nursing problems through research; and (7) amenable organizationally to reducing nonnursing functions.
From this conceptual framework the nurse practitioner was prepared to expand the scope of nursing practice while maintaining and enriching the nature of nursing.

Henderson elucidates this nature beautifully in the following description of nursing:

The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to a peaceful death) that he would perform unaided if he had the necessary strength, will, or knowledge. And to do this in such a way as to help him gain independence as rapidly as possible. This aspect of her work, this part of her function, she initiates and controls; of this she is master. . . . This concept of the nurse as a substitute for what the patient lacks to make him "complete," "whole," or "independent," by the lack of physical strength, will, or knowledge, may seem limited to some. The more one thinks about it, however, the more complex the nurse's function as so defined proves to be. Think how rare is "completeness," or "wholeness," of mind and body.

The scope of practice defined by the American Nurses' Association embraces the many types of roles that nurses fill which are dependent upon preparation, practice models, and client needs. In this scope-of-practice statement, the nurse practitioner assesses the physical and psychosocial status of clients by means of interview, health history, physical examination and diagnostic tests. The nurse practitioner/clinician interprets the data, develops and implements therapeutic plans, and follows through on the continuum of care of the client. The practitioner/clinician implements these plans through independent action, appropriate referrals, health counseling, and collaboration with other health care providers. All aspects of the therapeutic plan and the continuum of care are documented in the client's records. The nurse practitioner/clinician accepts the responsibilities and the obligations to practice in accordance with accepted standards of nursing as defined by the profession and adheres to similar standards of ethical practice exemplified in the ANA Code for Nurses. The nurse practitioner/clinician accepts accountability for these professional and ethical activities.
Originally the academic base for this particular type of practice was conceived to be a master's degree in nursing. The rationale was that the accountability the nurse practitioner was expected to assume required scientific and professional development at an advanced level and, further, that teachers of nurses could combine teaching with practice and clinical research. The ultimate aim was curriculum change in collegiate nursing education programs.

**IMPACT OF THE NURSE PRACTITIONER**

However, before the five-year demonstration project on the pediatric nurse practitioner was completed at Colorado, the idea of expanding nursing roles spread to many other specialty fields of nursing practice: school nursing, obstetrical and maternity nursing, adult and gerontological care, family nursing, and others. Service settings other than ambulatory care were also affected. Throughout these years of expanding the nursing roles, many studies were conducted to evaluate the acceptance and competence of the nurse practitioners and their impact on the health care delivery systems.

In the early sixties, Hathaway and others utilized nurses in a college health service as primary interviewers and care givers, and a highly effective and acceptable health service for college students was provided. Increasing patient satisfaction and excellent care were reported in a study of maternal and child health service by Siegel and Bryson. Enthusiastic response from patients was later reported by other investigators.6

The competence of the nurse to provide care has been well demonstrated in a host of studies which compared physicians and nurse practitioners. In investigations by Charney and Kitzman and by Duncan and others it was found through record audits that the quality of nurse practitioners' clinical judgment on the health status of children was highly acceptable. Similar findings were reported in a study on school nurse practitioners by Hilmar and McAtee, who also noted a high degree of patient compliance in the school nurse practitioner model of practice. Clinical decisions made by nurse practitioners in an
industrial health service were investigated, too, and found to be adequate by Plotz and her colleagues.7

Probably the best designed early work on the nurse practitioner was done by Lewis and his associates.8 From their control study in a midwestern medical clinic, they reported that patients in the nursing clinic demonstrated increased compliance, less disability, higher satisfaction, and fewer broken appointments than patients in traditionally operated medical clinics.

Later studies by Spitzer and others in Canada pointed up the need to address the realities of practice, e.g., the need for reimbursement, shared responsibilities for patient care, and suggested that outcome measures related to the patient's health status were needed.9

Factors in the service setting which affect practice have received attention by a number of investigators in recent years. Gerstein and others in 1973 and Storms in 1973 explored environmental variables that influenced the utilization of the newly learned skills of nurse practitioners and gave recognition to the complexities of interactions between and among physicians, nurse practitioners, and others. Williams identifies some of these interactions from historical and organizational perspectives, patient mix, and the individual physician's preferences and patterns.10

In a follow-up evaluative study of nurse practitioner graduates in western New York State, Sullivan supports the finding of earlier investigators that the practice setting does influence greatly whether or not the nurse practitioner will be able to function in accordance with her preparation.11

Recently studies have been reported on the economics of care provided by different health professionals and the distribution of health manpower, but these are too meager to permit generalizations.

The emergence of the physician assistant coincided with the role expansion in nursing.12 As demands for medical services grew, physicians felt the need for assistants to help in providing care. These assistants focus, as do the physicians, on diagnoses and therapeutic management of medical problems, primarily
in illness and disease. Assistants are trained by medical mentors and continue to work under their supervision.

Though some tasks and techniques are shared and common to the nurse practitioner, the physician, and his assistants, there are defined differences in the history and traditions, philosophy, preparation, and practice of these groups. The expansion in the scope of nursing practice opened opportunities for teaching and counseling patients in health maintenance and self-care. By gathering a comprehensive health history, extending the data base of physical and psychosocial information, and requiring a high level of clinical judgment and accountability in decision making, nurses are able to meet health needs that for the most part had gone unserved.

Promoting continuity and coordination of care is another nursing responsibility that is enhanced by the expanding scope of practice. Further, this expansion has resulted in a more efficient use of available medical resources. Many studies have shown that the medical care systems are still not used to maximum advantage, and note public criticism of the inability of the systems to respond in the face of escalating costs. These are all serious concerns to the professional groups, governmental agencies, and private health insurers.

Other institutions have been responsive to expanding the scope of practice for nurses—notably, state legislatures. State practice laws in thirty-one states have been changed within the last five years to accommodate the new responsibilities assumed by nurse practitioners. Bullough and Hall present interesting analyses of these changes as differing models of nursing practice evolve. Though most nurses are not self-employed, some individuals and groups of nurses do conduct independent practice. These nurses offer nursing and health services under the aegis of the nurse practice acts in their respective states. To date no legal challenge to this type of independent practice has been recorded. While private entrepreneurship on a fee-for-service basis is an important factor, it probably will not become a dominant pattern of delivering nursing and health care. The fee-for-service and solo practitioner patterns of yesteryear are becoming obsolete; the chal-
The challenge before us is to deliver quality services at reasonable prices, through mutually dependent relationships and shared accountability between and among providers of care and those receiving the services.

Over the past twelve years, about 7,000 nurse practitioners have been prepared in many different types of programs. Because of the proliferation of types and kinds of programs and practitioners, comparisons are difficult to make and perhaps must await reports on studies being made of the last decade's progress in manpower preparation and practice.

While a number of national studies are under way, findings to date are available in only two reports on the training and deployment of nurse practitioners. One study, which includes physician assistants, was completed in 1976 and provided some comparative data on 145 programs, 44 of which were examined in depth. The findings show that:

1. Course length (including preceptorship) varied greatly both within and between program categories;
2. Course requirements for PA's appeared to have some degree of uniformity in terms of subjects covered, even though the number of hours allocated to different subjects varied;
3. Graduating class size ranged from an average of 11 for the NP Family Certificate programs to 21 for the PA programs;
4. Distribution of total expenditures varied—total expenditures for instruction ranged from 40 percent for MEDEX to 73 percent for NP masters programs;
5. Median cost per graduate ranged from a low of $5,700 for the NP Adult Certificate program to a high of $15,100 for the PA programs;
6. Department of Health, Education and Welfare program grants and contracts comprised the largest source of funds for these programs.14

A 1976 report on Phase I of an ongoing longitudinal study on nurse practitioners and their programs provides information on "the numbers and types of nurse practitioner educational programs, the entrance requirements, curricula lengths and contents and the faculty participation in that preparation." Data about programs initiated before January 1974 revealed
87 certificate programs and 46 master's degree programs in 100 institutions which prepared 1,297 nurses for expanded roles in health care delivery. Role functions within the definition of this study included "history taking, physical examination, ordering laboratory tests, and assuming responsibility for medical management of selected cases with emphasis on primary care."  

Survey response was unusually high: 99 and 98 percent respectively for certificate (continuing education) and master's degree programs, with student response reported only slightly lower. A total of 1,101 respondents were included in the study. Pediatric offerings were more prevalent than other types of nurse practitioner programs and relatively evenly distributed geographically throughout the United States. Diversity was demonstrated in the characteristics of the faculty, curriculum length and content, financial support, and student profiles and expectations.

When Phases II and III of this longitudinal study are completed, generalizations may become possible about nurse practitioner roles and functions, their efficacy and effectiveness, and their potential for the future in health care delivery. Until then, it is obvious that, while many questions remain unanswered, the growth of the nurse practitioner field will continue. Some changes are occurring. These are observable most dramatically in collegiate nursing education programs. Academic nursing is attempting now to integrate into the baccalaureate and master's degree programs selected concepts and skills from the nurse practitioner program at the appropriate level of student learning. This effort has demanded a reorientation of faculty to practice and has appreciably altered their activities. Nurse faculty members are being retrained for teaching and practicing primary care under special programs supported by the Division of Nursing of the Department of Health, Education and Welfare, and the Robert Wood Johnson Faculty Fellowship Program.  

Many faculties are engaged in bootstrap self-help operations with the cooperation of medical school colleagues. Finally, after twelve years, the original goal conceptualized for the first pediatric nurse practitioner project to
prepare teachers of nurses is being realized, though slowly.

Some social and professional indicators are of import to the continuing development of the nurse as giver of primary care. Concerns expressed in the sixties about the deficiencies in health services remain. These concerns are related to escalating costs and dwindling financial resources, to accessibility of services, and to the preparation and distribution of manpower. Attempts to address these concerns have led to the exploration of new concepts in delivering care, opening access to care, and utilizing financial resources. During recent years, the concept of primary care itself has received much attention. Those who struggle at the committee level to identify and report its major parameters know how numerous such attempts are. One recent report, published by the Institute of Medicine, lists the characteristics of acceptable primary care as accessibility, comprehensiveness, coordination, continuity of services, and accountability of the primary care unit for personal health care.\(^{17}\)

The primary care unit, as defined, is any combination of practitioners (physicians and/or nonphysicians) who meet the criteria within the characteristics listed above. Through accessible, reasonably priced primary care services organized to meet the major portion of health care needs, attempts should be made to prevent disease and disability, reduce costly institutionalizations, and promote self-help and health maintenance.

At this writing, the author finds no grand design to persuade either the people needing care or their providers to change their modus operandi. Unless health care systems incorporate incentives and rewards which truly emphasize the responsibility of the consumer and encourage providers to keep people well and healthy, few changes are possible. The violations and abuses of present health regulations reported by every group of practitioners and institutions in daily news media will continue.

The Future

The nurse practitioner, the deviant of yesteryear, represents a transitional form of nursing preparation and practice. It is
obvious that the professional nurse of the future will have all the characteristics embodied in the original nurse practitioner model: clinical expertness, accountability to people, autonomy and independence in nursing, interdependence in health care delivery, collegiality with physicians and other health workers, opportunity for scientific investigation of nursing care problems, and political avenues of input about health care issues.

These will come about through changes in the preparation and practice in professional nursing, and through legislation, reimbursement regulations, reorganization of health services, and social changes.

Since 1965 there have been innumerable changes in nursing education and nursing practice, and more are predictable. In education, a striking shift has been shown in the closing of hospital diploma schools and the increases in associate degree and baccalaureate programs and enrollments. Entry into professional practice within the next decade will undoubtedly require the minimum of a baccalaureate degree in nursing. The health professions, particularly nursing and medicine, will come to agree upon cooperative practice units and educational programs in the interest of providing team learning experience. Some individuals and schools will resist the change, but the change will occur. Leaders in the respective professions will come to mutually respectful arrangements, if for no other reason than that there are not enough resources to support the existing separatism.

Master’s programs in nursing, which have as their major purpose preparing the profession’s leaders as clinical specialists, teachers, administrators, and consultants, will accommodate new and expanded role integration. Increasingly, doctoral programs in nursing will prepare researchers and top-level leaders for education, practice, and public service. Post-doctoral study to help nurses advance their research and practice skills is the next giant step.

Many nurse faculty are seeking ways to maintain their clinical skills which will allow them to formulate hypotheses for investigating nursing problems; they wish at the same time to enrich their teaching, to gain creditability with students
and colleagues in nursing and medicine, and to influence the quality of care delivered. Schisms between practice and education are also being addressed by means of new organizational patterns, though slowly. One example is the unification of education and service at the University of Rochester, where the dean of the School of Nursing is also the director of nursing at the Medical Center. Nursing faculty are chiefs of services; clinical specialists combine practice with teaching and research; and selected staff nurses function as associates. All engage in helping students learn in a service climate dedicated to improving practice through education and research. Nurses functioning in new expanded roles and in traditional roles work together with colleagues in medicine.

Further legislative changes to accommodate the expanding scope of nursing practice are urgently needed to free qualified nurses to practice to the full extent of their preparation. Nurses can and should be accountable to the clientele they purport to serve, whether as independent practitioners or as team members.

Federal legislation must be amended to eliminate barriers which now prevent nurses from receiving appropriate reimbursement for their services. Some progress has been made toward recognizing the contributions of nurses in rural clinic services; however, the problem persists in urban and suburban communities which have unmet health needs. To assure society of competent practitioners, some order will be required for program accreditation and certification of practitioners. While one would not wish to discourage program innovation and creativity, standards and criteria should be generally agreed upon and administered to assure competency, permit mobility of practitioners, and provide public identification of qualified persons.

Perhaps the most exciting prospect for the future would involve people in their own health care. A patient's bill of rights, enunciated to promote full disclosure, protection, choice, and responsibility in one's own care, would place within reach of the consumer an increasing participation in decisions affecting his own health care. Though nurses have always been
concerned with patient education, the entry of the consumer into a full partnership in health care would require increased investigation of this relationship and its effectiveness in changing behaviors. Organizational designs such as health maintenance organizations for delivery care, and legislative provisions as demonstrated by the Health Planning and Resources Act (1974), offer encouraging signs for new partnerships between health professionals and the people they are committed to serve.

Concern for the future of the nurse practitioner has been expressed in relation to the increasing supply of physicians and their growing interest in preparation and practice for primary care. It is the thesis of this writer that a complementarity exists between nursing and medicine. One is not a substitute for the other, though tasks and functions are often shared and often seem to overlap. Longitudinal studies of the career patterns of both professions will need to be conducted before forecasting of manpower needs can become a science. So far, we have been notably unsuccessful in the predicting of needs and in the utilization, deployment, and evaluation of health manpower. Obviously, more research is needed.

In this presentation questions related to the initiation and development of the nurse practitioner movement were addressed. Reports of various studies indicate the nurse practitioner of the future may render quality health services with a high degree of acceptance by patients and others and that many environmental factors affect the nurse practitioner's scope of practice.

The future for the nurse practitioner depends on successful integration of the practitioner's knowledge and skills into nursing education programs. Should hopeful signs come to fruition, the nurse practitioner will be in the forefront with other health practitioners interested in providing comprehensive health services in the United States.

Notes


12. Actually, expansion of the scope of practice has been documented throughout nursing’s history. Nurse midwifery is a prime example of long-standing efforts of nurses to provide obstetrical care for women with normal pregnancies.


THE EDUCATION AND TRAINING OF REHABILITATION COUNSELORS

Marceline E. Jaques, Dwight R. Kauppi, Joseph M. Steger, & Gregory A. Lofaro

Since the first person was hired full time on public funds as a vocational rehabilitation worker in 1918 (Obermann 1965), the general objectives of the field of rehabilitation counseling have expanded in several directions. This expansion has led to a number of different programs of education and training which can best be understood by examining them from several perspectives. This chapter discusses the principles of rehabilitation as they relate to counseling, the work and work setting of counselors, and the education and training programs that have evolved.

Principles of Rehabilitation

A few interrelated concepts and assumptions can serve to describe rehabilitation philosophy and rehabilitation counseling. The first assumption is that an individual, although complex, is a unitary whole that should not be considered as divisible into discrete parts. Study of individuals, however, has revealed greater complexity than a single person can fully understand, which has led to the development of distinct disciplines and professions. One resolution of the dilemma caused by the need for both holistic and specialized understanding is
to bring specialists to an integrated consideration of the individual in a multidisciplinary team.

The second major assumption is that rehabilitation is directed toward goals that are intrinsic to a person's total life situation. Although clients come to rehabilitation because of disability or some form of dysfunction, these problems are only part of the total individual. In the same manner that the individual is considered holistically, the rehabilitation goals must also be holistic. This concept leads to the principle that the individual's assets should be emphasized in rehabilitation planning, rather than pathology or deficiencies. In coping, an individual uses personal and other assets to move toward his goals despite deficiencies or remaining disabilities. The task of the rehabilitation counselor and other team members is to facilitate the client's coping. The client's behavior at the conclusion of rehabilitation service determines the success of the process. If clients are coping and achieving goals, they may be considered rehabilitated, even though the original disability or its residual may remain. The client must be actively involved in each stage of rehabilitation, including determining goals, selecting methods, identifying assets, developing coping skills, and evaluating success. A client whose involvement is only passive will be unlikely to maintain coping behavior when rehabilitation support is withdrawn. The entire process is a holistic team effort to assist disabled persons to determine their own goals and to develop means to reach them.

Rehabilitation counselors work within this philosophical context as psychological counselors with knowledge and experience of the impact of disability on human lives. Their contributions to the rehabilitation team include psychosocial and vocational counseling, coordinating client programs that utilize professional and community services, and consulting with clients, families, and other team members.

In addition to belonging to the generic counseling profession, rehabilitation counselors identify with the broad rehabilitation field. Primarily community-based, counselors work in and among a number of private and public agencies, services, and facilities, including workshops, rehabilitation centers, half-
way houses, and other transitional services and facilities; large general medical, research, and psychiatric hospitals; local, state, and federal services, such as the Office or Division of Vocational Rehabilitation, Commission for the Blind or Visually Handicapped, United States Employment Service, Workmen's Compensation, and the Veterans Administration; community mental health centers; and substance abuse and correctional facilities. Rehabilitation counselors are increasingly moving into the private sector both as private practitioners and as corporate employees.

**Role and Functions of Rehabilitation Counselors**

The tasks of rehabilitation counselors are as diverse as the settings in which they work. Several surveys have identified the types of roles and functions they perform. Rusalem (1951) summarized counselor functions as medical diagnosis, social and vocational diagnosis, case finding, counseling, restoration, training, placement, follow-up, and miscellaneous tasks. The Regional Rehabilitation Research Institute at the University of Wisconsin described nine rehabilitation counselor functions. These included case finding, eligibility determination, counseling and vocational planning, provision of restorative services, provision of client training, provision of supportive services, employment placement, consultation to other agencies serving the handicapped, and public relations (Bronson et al. 1967). In a more recent task analysis of state agency counselors, Wright and Fraser (1975) sorted 294 tasks into 12 categories. These categories are administration/supervision, evaluation, consultation, professional and agency development, client counseling and planning, rehabilitation client assessment, job placement, referral and community relations, case management and special services, intake and eligibility determination, recording and reporting, and incidental client assistance and clerical.

In an extensive national survey of rehabilitation counselors, Muthard and Salomone (1969) used a task-inventory questionnaire. Placement, affective counseling, group procedures, vocational counseling, medical referral, eligibility case finding, test
administration, and test interpretation emerged as common rehabilitation counselor functions. Counselors estimated that on the average about one-third of their time was spent in activities categorized as counseling, although those who worked in facilities (e.g., workshops, rehabilitation centers, etc.) spent a greater proportion of their time counseling than did those who worked in state agencies. Clerical tasks, such as case recording and reporting, occupied about one-fourth of the counselor's time, while 7 percent of the time was spent on job and vocational placement.

The first large-scale attempt to determine the perceived importance of rehabilitation counselor roles and functions was conducted by Jaques (1959). She found that a national sample of counselors revealed that creating a therapeutic climate, structuring-arranging, structuring-defining limits, information gathering, evaluating, information giving, and interacting were judged critical for successful counseling.

This same question was pursued at the Arkansas Regional Rehabilitation Research Institute through a counselor interview behavior analysis. Behaviors were categorized as information seeking—specific; information giving—administrative; communication of values, opinion, and advice; listening—client expression; information giving—educational and occupational; information seeking—exploratory; clarification, reflection, and restatement; supportiveness; information giving—client-based; information giving—structuring; friendly discussion and rapport building; and confrontation. Factor analysis of the correlations between these behaviors was used to identify three types of rehabilitation counselors on the basis of their interview behavior (Bolton 1974). Information providers tend to give general administrative information, discuss specific details about services, and provide other information fitted to client needs. Therapeutic counselors are apt to listen, explore, reflect, and provide support to clients. Information exchangers solicit information from clients, provide educational and occupational information, discuss, and offer advice. Therapeutic counselors, who generally had had master's training, tended to serve the most difficult clients at greatest expense per client, achieving
an intermediate success rate. Information providers served the least difficult clients at lowest cost and with the greatest success rate. Information exchangers served moderately difficult clients at intermediate cost using more vocational and supplementary services, but with the lowest success rate (Bolton 1976).

Both Muthard and Salomone (1969) and Wright and Fraser (1975) obtained the judgments that two types of roles are based on different educational requirements. Muthard and Salomone found that counselors perceived affective counseling, group procedures, medical referral, and test interpretation as requiring master's level education. Experience and on-the-job training were considered to be generally sufficient for placement, vocational counseling, test administration, eligibility, and case-finding functions.

In Wright and Fraser's study (1975), supervisors of rehabilitation counselors identified almost half of their tasks as requiring master's education training—especially administrative and supervisory tasks, consultation, counseling, planning, and many of the evaluation and client assessment tasks. Bachelor's level training was seen as appropriate for most of the referral, community relations, and job placement tasks, about half of the case management and special services, and almost a third of the counseling and planning tasks, especially those dealing with information exchange. Paraprofessional training was identified for clerical and incidental tasks, several of the case management and special services, client eligibility and intake tasks, and a few other tasks scattered over six other categories.

Both of these surveys reveal a tendency to see in master's and bachelor's roles a division between the so-called counselor role and the coordinator role. This distinction, much discussed in the 1960s, has been denounced as raising a false issue and as being both unnecessary and unhelpful (e.g., Angell, DeSau, and Havrilla 1969). The two surveys and the Arkansas RRRI interview behavior study, however, suggest that counselors may tend either to assume a counseling role, including clarifying, exploring, and helping clients to understand and decide
or to concentrate instead on some form of information exchange and other service provision.

The surveys cited show a great deal of consistency, considering the many differences in sampling, method, and date at which they were conducted. Their core concern lies with locating eligible clients, doing a careful assessment, helping them understand their situation and options, developing a vocationally oriented plan, and providing support while the plan is tested and realized. The major developments of the past twenty-five years include expansion of the numbers of rehabilitation counselors and facilities, extension of services not only to more clients but also to clients with more severe disabilities, and increases in the number of techniques counselors can use.

Rehabilitation counseling’s focus has remained on the individual client, but experiences with developmental and severe disabilities, substance abuse, and corrections have made apparent the influence of family and social structure on the rehabilitation process. Rehabilitation counselors join colleagues and clients in attempting to reduce such environmental and social barriers as high curbs and steps, inaccessible transportation, job discrimination, social stigma, and inadequate facilities and services. Prevention of disabilities remains a secondary but increasingly discussed concern.

The rehabilitation counselor is most concerned with a client’s transitions and development. Certain maintenance functions are part of the day-to-day job in, for example, resolving conflicts and acting out behavior in a workshop, helping a patient to relate treatment to posthospital functioning, or maintaining the paper flow necessary to keep clients in appropriate services. Day-to-day service functions (e.g., therapy, job skill development) are important only insofar as they help clients to achieve their own goals.

The combination of these roles and concerns, together with the types of clients served, suggests some of the differences between rehabilitation counselors and related professionals. Rehabilitation counselors need more sophisticated knowledge of the functional implications of a wide variety of disabilities
than does the vocational counselor. They are likely to focus more specifically on the vocational adjustment of a client with a disability than do social workers. In contrast with most health professionals, the rehabilitation counselor is more concerned with the functional limitations that remain after treatment and the psychosocial adjustment process of clients than with details of pathology and treatment. This blend of a unique perspective, knowledge shared with related professions, and specific rehabilitation knowledge and skills is reflected in rehabilitation counselor education.

Education of the Rehabilitation Counselor

Vocational rehabilitation has always been closely identified with the value of work and employment as a primary goal of the rehabilitation process. Initial identification with vocational education set the emphasis on vocational training and placement. According to Williamson (1965), because of these vocational education roots, vocational rehabilitation did not inherit the tradition and work started by Parsons (1909). Bloomfield (1911), a vocational educator and successor to Parsons as director of the Vocational Bureau of Boston, diverged from the scientific and psychological analysis traditions of Parsons, Harper, and Whitmer, the originators of counseling. Bloomfield advocated occupational information, knowledge of local resources, and the "common sense" of people in occupations who could serve as advisors and employers. These views influenced the vocational field and consequently provided the climate within which vocational rehabilitation originally developed. Historically, legislation supporting rehabilitation programs has clearly emphasized its vocational nature. It is significant, however, that the term vocational has been dropped from the title and also from some sections of the Rehabilitation Act of 1973 (Public Law 93-112) and Amendments of 1974 (Public Law 93-380).

Tension has always existed between the vocational and psychosocial poles of the field. Many rehabilitation specialists believe that a vocationally oriented program limits many clients
who need comprehensive social-psychological services before they can profit from vocational services. But both points of view presuppose a broad program of medical and other allied health services designed to meet the individual needs of clients—especially persons with severe disabilities. These individuals are the current focus of rehabilitation programming as mandated by the Rehabilitation Act of 1973 and Amendments of 1974. Such comprehensive programming requires extraordinary team effort to achieve the coordination of multidisciplinary services.

Rehabilitation counselor education began in 1941 at New York University under Rolland Spalding, shortly followed by the development of programs under Kenneth Hamilton at Ohio State University in 1944 and under John J. Lee at Wayne State University in 1946. The focus of these early programs evolved from their founders' academic disciplines, which included vocational education, social work, and special education. The exact nature of the curricula was molded by the close association of the founders with the vocational rehabilitation movement and the needs of agencies for trained personnel.

The only other extant training was short-term and in-service, carried out by rehabilitation agencies. The most effective training effort occurred after World War II in the Veterans Administration (VA) and was developed for teams of experts involved with the rehabilitation of severely disabled veterans. Doctoral level psychologists were trained to work with the disabled through this in-house training program. Though planned as short-term and on-the-job training, this program was developed by professionals who had a basic philosophy of rehabilitation counseling. More important, they had useful training experience and curriculum models.

The Vocational Rehabilitation Act of 1954 (Law 565) provided for teaching grants and graduate student stipends in universities interested in and qualified to establish rehabilitation counselor education programs. This training provision was thought of by the law's originators as short-term, or no more than nine months. The concept of long-term training
support had not evolved, nor was it understood. Through the efforts and vision of Mary E. Switzer, director of the Office of Vocational Rehabilitation (OVR), and James F. Garrett, the first administrative officer for the training program, a group of educators was brought together to consider the form, type, and level of training to be developed and funded. This group represented the National Vocational Guidance Association, the American Psychological Association, the Council on Social Work Education, and the National Rehabilitation Association. A consensus was reached that education for rehabilitation counseling should be at the graduate level (McCauley 1976).

Some of the psychologists involved in VA rehabilitation programs and training efforts provided a cadre of leadership in developing the early rehabilitation counselor education programs. From the ranks of these VA programs many of the coordinators and other faculty for the new rehabilitation counselor programs were recruited. (John Muthard, State University of Iowa; Lloyd Lofquist, University of Minnesota; John McGowan, University of Missouri; and C. H. Patterson, University of Illinois, were some of the early program directors who came from the VA programs.) The early academic leadership of psychologists schooled and experienced in rehabilitation added to the psychological thrust of the curricula. This thrust included an emphasis on the application of scientific psychology to problems such as individual and job assessment for the purpose of vocational planning. Further, the professional identification of rehabilitation as a psychological field was also influenced by this leadership.

The early training programs were started within several academic areas or departments, such as counseling and guidance, educational psychology, special education, social work, and psychology. This program placement within several areas reflected, perhaps, the multidisciplinary nature of rehabilitation as well as the professional backgrounds of the early leaders. In general, the programs in schools of social work and departments of psychology have not survived, while those in departments or programs of counseling and guidance, counselor education, special education, and educational psychology have become
most numerous and stable during their brief history. Several programs have been established in, or moved their academic affiliation to, schools of allied health; others have independent status as a program, department, or school (Jaques 1970).

It seems difficult for one academic field to provide both the breadth and depth of knowledge and skills needed in rehabilitation counseling. Major identification with the counseling aspects of the field may repress other rehabilitation aspects; placement in the health care field, however, may shift and isolate the counseling emphasis. Ideally, a program needs both to maintain its own autonomy as a professional training curriculum and to identify with the health and helping disciplines, which are often separated in universities. This blending is extremely difficult for any program to achieve, but gross approximations to the ideal are sought through interdisciplin ary programming.

Over the twenty-two-year history of the training grant program, there has been a continuous increase in rehabilitation programs. There are currently eighty-six graduate programs leading to a master's degree; twenty programs offer a doctoral level concentration in rehabilitation counseling, with the doctoral degree itself awarded in a generic area of educational psychology, counselor education, or counseling psychology. (A directory of the Rehabilitation Counselor Training Programs is available from the National Council on Rehabilitation Education [NCRE], 1522 K Street, N.W., Washington, D.C. 20005.) More recently, undergraduate programs and majors in rehabilitation services have been developed as part of a career ladder or generic preparation for the field.

From the beginning, education and training in vocational rehabilitation have been part of a comprehensive program to help disabled clients become rehabilitated. The law itself made provisions for the multiple parts needed in a national program of vocational rehabilitation, including direct services to clients, facility development, a research program, interagency collaboration, and training and education (McCuauley 1976).

The inclusion of all these parts was and is unique in legislation for human resources development. Mangum and Glenn
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(1967), in a Policy Paper on Vocational Rehabilitation and Federal Manpower Policy, concluded:

Most manpower . . . programs to date have simply assumed that if money is available to be spent, personnel will be found with the ability to spend it and deliver the intended services. This has not proven true. . . . the Vocational Rehabilitation Program has, in part through its training grants and fellowships produced the most competent front-line manpower of any related program. [p. 56]

Since the beginning of the training programs two viewpoints on the basic academic foundation for rehabilitation counseling have existed. One viewpoint supports a multidiscipline foundation to include knowledge from medicine, psychology, sociology, education, social work, and economics, while the other states that psychology constitutes the primary academic base (Jaques and Perry 1974).

A national conference on rehabilitation counselor preparation influenced the curricula of the early training programs (Hall and Warren 1956). It was the consensus of this group that the knowledge and preparation should be multidisciplinary, with emphasis on the development of certain skills “peculiar to the needs of the handicapped.”

A series of conferences and workshops was held between 1959 and 1968, attended by coordinators of the existing rehabilitation counseling programs. These workshops were financed by OVR for the purpose of providing forums or seminars on issues in curriculum development. A number of training formats were tried, but perhaps the most useful was the Joint Liaison Committee (JLC) composed of regional representatives from the Committee on Training of the Council of State Administrators of Vocational Rehabilitation and from the Coordinators (of rehabilitation counseling programs) Liaison Committee. Committees were established to study curricular content in areas of mutual concern to universities and agencies. Several of the committee areas were selected for national workshop programs, including those in supervised clinical practice, agency-university coordination, research utilization in rehabil-
itation, occupational information and employment, medical information, and support personnel. These committee and workshop deliberations and reports provided useful information and assistance to the developing programs.

Previewing the curricular content of the training programs, Olshansky (1957; Olshansky and Hart 1967) believed they overemphasized psychological content and neglected areas of industrial sociology, including the labor market, workmen's compensation, and all other factors related to the work situation. Schiller and Fertig (1964) decried the dichotomy between the academic preparation of counselors and the professional expectations for them on the job. They believed the counselor should play a more active role with clients and should have more firsthand experience with work situations, particularly in industry, and with persons from a variety of cultural and socioeconomic groups.

Patterson (1958a, b, c) has consistently written in favor of the psychological base, pointing out that counseling uses the human relationship as the basic therapeutic tool and, therefore, focuses on the application of principles and techniques of psychology. In addition, he emphasized the importance of psychological research and evaluation in assessing the results of counseling efforts.

A survey by McCavitt (1957) of leaders in rehabilitation assessed the areas judged important in the training of counselors. In general, psychological areas were again highlighted. Cantrell (1958) sampled practicing rehabilitation counselors and found that, generally, they considered counseling and casework skills most important, followed by familiarity with tests, occupations, community resources, and special knowledges regarding the client's psychological characteristics and disabilities.

Finally, a committee representing the Division of Counseling Psychology of the American Psychological Association (1963), under the chairmanship of John E. Muthard, studied the role of psychology in the preparation of rehabilitation counselors. The report concluded that principles of psychology should form the basis for their education. The assumption here was
that rehabilitation counseling, like all counseling, is a psychological process. The basic discipline, therefore, is psychology. The committee, in a survey of rehabilitation counseling programs, found that 75 percent of the program directors were psychologists and members of the American Psychological Association.

A statement of policy on the professional preparation of rehabilitation counselors was recently developed and adopted by the American Rehabilitation Counseling Association (ARCA 1974). The ARCA statement details the goals and requirements of a two-year graduate program in rehabilitation counseling leading to a master's degree. These requirements include (1) general elements shared with all counselors, such as foundations of human behavior; social, cultural, and economic factors influencing individuals and groups; and professional studies in counseling; (2) specific elements for rehabilitation counseling, including knowledge of psychological aspects of disability; medical aspects of disability; differential impact of disability on traditional counseling, testing, and placement procedures; legislative programs critical to provision of services; attitudes and skills necessary to promote the concept of client advocacy; knowledge of coordinating and decision-making techniques necessary to formulating and implementing rehabilitation plans and programs; (3) opportunities for personal growth, including developing of self-awareness and self-understanding, and opportunity for personal counseling; (4) graduated program of supervised experience, including: (a) observational opportunities, such as field visits, audio and video tapes, films; (b) prepracticum field assignments to provide students relevant information about the structure and function of agencies and the nature of the client population; (c) practicum experiences to integrate didactic training and applied work with several and varied clients over a period of time through direct supervision of at least one hour per week, using either monitoring of taped interviews or other techniques; and (d) an internship in an agency to provide an in-depth experience demonstrating fully the desired professional and work-related competencies.
Undergraduate Education. Undergraduate education in human services has a long history in the United States, but specifically in rehabilitation it is about a decade old. It has grown rather rapidly from the early program at Pennsylvania State University to almost fifty programs in 1974. Programs vary widely in size and intensity and differ from each other more than master's programs do. A survey of all identified programs, undertaken by the Undergraduate Education Task Force of the National Council on Rehabilitation Education (Report of Undergraduate Task Force, 1975), indicated a general consensus on the following points:

1. Undergraduate education in rehabilitation is primarily a pre-professional program, though special training and field work offered at some colleges or universities are appropriate for case management and coordination positions in rehabilitation services.

2. Most programs report a favorable employment market for those of their graduates who are interested in work immediately after bachelor's training. Geographic differences were noted on this point.

3. Undergraduate programs play a valued service in exposing students majoring in health and human services to rehabilitation principles and practices.

4. Undergraduate programs do not purport to train counselors, but do train students in communication and problem-solving skills at an introductory level.

5. A semester or summer of field work is typically provided and valued highly by both staff and students.

6. Undergraduate curricula should build upon a general education base and include some consideration of each of the following areas: psychosocial problems of deviant and disabled persons; services, objectives, and methods in rehabilitation; communication, problem-solving, and other modes of behavior change.

Published evaluations of undergraduate education are few. Hylbert and Kelz (1970, 1972) report that the program at Pennsylvania State University has been able to develop and to maintain student interest and to produce graduates who will obtain jobs in rehabilitation-related services or go on to grad-
Graduate school. Informal surveys and discussions with representatives of other programs suggest this pattern may be fairly typical (Steger 1974).

*Continuing Education.* Since there were rehabilitation counselors before degree programs existed, the earliest education of these counselors was necessarily through continuing education programs; that is, training on the job. It is believed that many of these early training experiences dealt primarily with the impact of new laws and regulations. Here, as in other aspects of training, the federal government’s role is substantial through financial support. The history of federal aid to such training programs is outlined in the report of the Eighth Institute for Rehabilitation Services, which was devoted to staff development (Wolfe 1970).

During the first twenty-five years of the state-federal vocational rehabilitation program, training of personnel was a major function of federal office staff members. But rapid expansion of the program following the 1943 Amendments to the Vocational Rehabilitation Act necessitated that training become the responsibility of the state agency. The 1943 regulations reflected that necessity, but no special funds were earmarked for training; instead, expenditures for training purposes were authorized as legitimate expenses, so that federal matching funds could be used. Since 1957 a small amount of money has been earmarked for the state agency to use for in-service training. The amount authorized was not intended to support in-service training fully, but it did provide minimal funds for staff development. Since then the federal office has supported long-term training grants, short-term training, and research and training (R & T) centers. The most recently developed federal training effort is the Regional Rehabilitation Continuing Education Programs (RRCEPs). The primary purpose of most of the federal support for training has been improvement and development of the staffs of state-federal vocational rehabilitation agencies, but private agencies have also benefited directly and indirectly. The amount of continuing education carried out by nongovernmental agencies is difficult to estimate. A survey by Wilson (1974) suggests that the average reha-
bilitation agency employee does have regular and frequent continuing education activities.

In-service training, generally, includes several kinds of activities. New employees, at all levels, require orientation to the agency. For rehabilitation counselors this includes orientation to laws, regulations, and procedures. When counselors are hired without a specific background in rehabilitation counseling, their in-service training may need to include topics related to disability, rehabilitation techniques, community facilities, vocational placement, and job adjustment. Changes in the regulations or procedures of the agency may require in-service training for all counselors, experienced and new. Those who specialize in working with specific disability groups may need appropriate in-service training. This is also the case for counselors who are preparing for specific job functions, such as intake or placement. In-service training may range from lunchtime discussions in local offices to periodic and structured induction training for groups of newly hired counselors.

Short-term training supported by federal funds is administered by both the central and regional offices, since it is conducted to meet special needs that are national or regional in scope. This training is implemented through a grant award. Grant recipients are selected on the basis of their special knowledge and their ability to conduct effective training. Generally, the training is conducted in a central location to which trainees travel from their local offices for two- to three-day workshops. Topics may include training in special professional skills, such as placement or caseload management, information regarding new techniques in rehabilitation, basic information related to a specific disability, or any topic of regional or national significance. Long-term training, administered by both federal and regional offices, generally provides support for degree programs in rehabilitation counseling as well as a variety of other specialized fields contributing to vocational rehabilitation.

The upsurge of rehabilitation activity in 1954 also marked the establishment of the first R & T centers. The nineteen existing centers are generally connected with university departments or schools of medicine. Three are concerned with mental
retardation, two with vocational rehabilitation, and one with the deaf. (A list of R & T centers is available from Rehabilitation Services Administration [RSA], Research and Demonstration, Washington, D.C. 20201.) Established and partially supported by RSA, the R & T centers conduct both research and training to encourage utilization of their research findings. Training typically takes the form of workshops, institutes, and short courses. Occasionally, longer-term training, such as research internships, may also be offered. Audiences may be local, regional, or national; the last is especially likely when the work of the R & T center is unique. The primarily medical centers offer training of interest to the rehabilitation counselor. Those connected with medical schools usually have rehabilitation counselors on their staff. Generally, a part of the center's effort is directed toward investigating the application of medical findings to vocational rehabilitation.

In 1974 continuing education was stimulated through the establishment of Regional Rehabilitation Continuing Education Programs (RRCEPs) in each of the ten RSA regions. Each RRCEP operates under regional guidance to coordinate, facilitate, and develop the training needed for staffs in public and private rehabilitation agencies. The many differences among the RRCEPs reflect their regional character. All RRCEPs, however, use regional advisory committees, conduct a variety of training needs surveys, and survey and publicize training resources. Furthermore, they provide direct training needed in their region. Some create necessary training materials, units, and modules. The RRCEPs have developed an informal national organization to facilitate communication and to coordinate activities (RRCEP Directors 1975).

All of these postemployment training resources serve several purposes. Since the graduate programs do not produce enough trained personnel, many persons are hired as rehabilitation counselors who have degrees in social work, school counseling, psychology, guidance, or some other area. Such newly employed persons need an opportunity to learn the basic principles and practices of vocational rehabilitation before they can become effective workers. Continuing education is needed also because
the field is changing and expanding. Many forces have combined to make a variety of continuing education experiences available. Presently, the problem is not the availability, but the coordination of these training efforts (Kauppi 1976).

Continuing education in more mature professions may be more organized, with built-in employment, professional, and legal sanctions. Rehabilitation counseling may reach this point before long, as maintaining certification becomes a reality. But current programs are far too fragmented to be efficient, and there is little uniformity of exposure from state to state, agency to agency, and counselor to counselor. As the roles, functions, and education of the rehabilitation counselor become stabilized, continuing education will reflect that stability.

**Professionalization**

The term "rehabilitation counselor" was first used in the professional literature by Finch (1937) in referring to the importance of special qualifications required of practitioners working with problems of disability. The term is probably American in origin and probably had its inception in the first Civilian Vocational Rehabilitation Act of 1920. The act, however, did not use the term. In fact, not until 1954 was any mention of counseling services written into the law (Public Law 565). Before the job title was established, the tasks involved had been performed by other professionals, such as public health nurses, social workers, or school counselors (Sussman and Haug 1967). The first written statement to give a description of the rehabilitation worker's job and function appeared in 1930 (Obermann 1965), though reference was made to the person performing what we now call the counseling function as the rehabilitation worker, agent, or officer.

The two professional areas whose roles were closest to those required of the rehabilitation worker were social work and vocational counseling. Neither, however, proved to be completely satisfactory for the rehabilitation field without the inclusion of additional knowledge and experience relating to the functional problems of disability and their psychosocial
effects (Wright and MacDonald 1944; Williamson and Bordin 1945). Probably because of this circumstance, along with the early disinterest of psychology in the area and the historical influence of vocational education on rehabilitation, the new specialized area of counseling emerged—vocational rehabilitation counseling. It has increasingly been referred to as rehabilitation counseling without the “vocational” prefix.

Rehabilitation counseling has borrowed approaches and techniques from several applied fields. The focus on the individual was borrowed from psychology and medicine; concern with the family and group came from social work; vocational evaluation, from vocational counseling and industrial psychology; skill training and placement, from vocational education.

Several disciplines have been drawn upon to form the rehabilitation counselor’s knowledge base for practice. These include behavioral and social sciences (psychology, sociology, anthropology, economics), education (particularly special education and vocational education), and health sciences (medicine, nursing, and the therapies—physical, occupational, speech, and hearing).

It is interesting to note that the first national conference on rehabilitation counselor preparation made no reference to the counselor as a professional entity. Rather, the rehabilitation counselor was viewed as a “technician” or a paraprofessional. Indeed, this perception was held almost universally from 1920 until recent years. It remains the prevailing concept of some state agency personnel and civil service commissions, as demonstrated by the hiring practices, role descriptions, and supervisory practices associated with rehabilitation counselors who work in the field (Hall and Warren 1956; Johnson 1975).

Generally, investigators who have examined the professional status of rehabilitation counseling agree that it is an emerging profession (Krause 1965; Muthard 1969; Salomone 1972; Sussman et al. 1975; Whitehouse 1969). The key components of a profession are said to include (a) a service orientation; (b) a unique body of theoretical knowledge; (c) autonomy of the work group; (d) community sanction of professional activities; (e) self-regulation of professional practice through a code of
ethics and strict rules regarding entry into the field; (f) a public image involving prestige and power (Greenwood 1962; Gross 1964; Salomone 1972; Sussman 1965). It is clear that many rehabilitation counselors meet some of these standards; however, role strain is common for members of an emerging profession, especially when their professional status is compared to that of persons in such established professions as medicine and law.

Rehabilitation counseling is not a large profession. In 1972 there were approximately 16,000 counselors, according to the Department of Labor (1974). Of these, about one-third were female. Three-fourths worked in the state-federal program, and an additional 800 rehabilitation counselors and counseling psychologists worked for the Veterans Administration. About half had master's degrees. Minimum requirements for employment generally are a bachelor's degree, including some specific courses in psychology or counseling, and at least one year of experience.

Rehabilitation counseling is affiliated with four major professional organizations: (1) American Rehabilitation Counseling Association (ARCA), a division of the American Personnel and Guidance Association (APGA); (2) National Rehabilitation Counseling Association (NRCA), a division of the National Rehabilitation Association (NRA); (3) Rehabilitation Psychology (Division 22) and/or Division of Counseling Psychology (Division 17) of the American Psychological Association (APA); (4) National Council on Rehabilitation Education (NCRE), a council of the National Rehabilitation Association.

No one organization can speak as a "united voice" for rehabilitation counseling. Patterns of professional affiliation tend to vary according to the work setting (Sussman, Haug, and Krupnick 1965). Counselors working in the state and federal programs have identified with NRCA and its parent organization, NRA. Counselors in private agencies, counselor educators, and doctoral level counselors have tended to associate with ARCA, APGA, and NRA. Many counselor educa-
Compared with other rehabilitation professions, rehabilitation counselors with a master's degree include more members of minority groups (about 5 percent), have made their vocational choices a little later in life, have more nearly average undergraduate academic backgrounds, have had more personal experience with disabilities, are more likely to have come from lower-class and working-class backgrounds, and are less likely to belong to professional associations or to leave the field of rehabilitation or be unemployed (Sussman et al. 1975).

Programs of certification for individual practitioners and accreditation of master's degree programs have been developed. By establishing national professional standards that any group, agency, or individual may use as a measure of professional competence, these programs involve evaluation and improvement of professional practice and the assurance of quality education of rehabilitation counselors. Both programs are the direct outgrowth of the concern of the professional organizations to establish standards, to stabilize the field of rehabilitation counseling, and to provide a baseline for future professional growth.

An independent Commission on Rehabilitation Counselor Certification was formed in 1974. The appointees include five each from ARCA and NRCA; one each from NCRE, the Council of State Administrators of Vocational Rehabilitation, International Association of Rehabilitation Facilities, National Association of Non-White Rehabilitation Workers; and three representatives from a national consumer organization. This commission has established minimum standards for practice and has developed a certification examination for demonstrating competence. The program has ended its "grandfathering" phase, and formal certification is a reality (McAlees 1975).

To develop an accreditation process, the Council on Rehabilitation Education (CORE) was formed by two representatives from each of the participating professional rehabilitation organizations mentioned above. CORE has developed procedures, instruments, and standards which have received ap-
proval of the National Commission on Accreditation. The major emphasis is on program development and improvement, rather than mere formal approval. A systematic, research-based collection of data from each participating training program, and employer evaluation of each program's graduates, are major features of the CORE approach to accreditation. Formal accreditation is in its second year; more than half of the eighty-six training programs have applied and are either accredited or in some phase of the process (Schumacher 1975).

**Questions and Issues**

This brief description of the history and current status of rehabilitation counseling should reveal the field as an emerging profession which is still seeking to resolve a variety of issues. These issues are common to any profession, though in more established professions they have either been resolved or the process of compromise is carried on less publicly. The basic issues in rehabilitation counseling education concern what rehabilitation counselors are to do and how they should be prepared to do it. In the following pages some selected issues and representative arguments are presented in order to illustrate the kinds of challenges which must be met by rehabilitation counselors and educators in the next few years. We cannot claim to have sampled all issues or all sides of each issue selected.

*Should Rehabilitation Counseling Expand Its Vocational Focus?* In the earlier days of the developing state-federal program the goal of rehabilitation counseling was clearly vocational: the field's full name was vocational rehabilitation counseling, and cases were not closed as successful unless job placement had occurred. Clients could not be accepted for service by the state-federal program unless there was a reasonable likelihood that they would ultimately be employable. Those persons whose disabilities precluded working were served by private agencies, if they were served at all.

Events have changed the certainty with which rehabilitation workers perceive vocations as the only important goal of their
services. Not long ago employment as a homemaker became a legitimate criterion for successful closure. Originally, the rationale for this type of closure had to be that employment of a disabled person as a homemaker freed a nondisabled person for the labor market. As counselors work with more severely disabled clients the necessity for legitimizing nonvocational goals is becoming clearer. In 1973 an act which would in effect have dropped the vocational emphasis from the state-federal agency would have become law except for a presidential veto.

The broadening of vocational rehabilitation to allow nonvocational goals is still controversial. Changes have been made already in the form of long-term evaluation periods which allow the state vocational rehabilitation counselor to evaluate a client at length to reveal any possible vocational potential. Still, many in the field hesitate to eliminate vocational adjustment as a goal.

As the definition of vocational adjustment becomes broader, many implications for training and practice arise. Perhaps, vocational psychology and vocational adjustment portions of curricula would need to be reduced and other emphases added. If rehabilitation counselors lose their identity as vocational counselors, presumably their goals will become generic personal and social rehabilitation. Concern for the vocational adjustment of clients may then be threatened, and the unique contribution of the rehabilitation counselor may be lost. Vocational psychology has provided rehabilitation counselors with a technology which includes conceptual and data bases, a technical vocabulary, and a means of assessment which allows defining objectives and describing relevant personal and environmental characteristics. One resulting benefit is the ability to evaluate the success of vocational rehabilitation. If the goals of rehabilitation are changed, what technology can be substituted?

A continuing narrow definition of rehabilitation, however, may pose some embarrassment for the field and those responsible for training and education. In a society in which the rights of individuals are being more and more recognized, service is less tied to profitable outcome. Severely handicapped children's
rights to a state-supported education are recognized, even though they may achieve only minimal educational goals. So, too, severely disabled adults are asserting their right to available services which are likely to improve the quality of their lives, regardless of potential employability.

Definitions of human rights are expanding and the traditional force of the work ethic is weakening. These value changes, coupled with the practical problems created by tight job markets, make it increasingly difficult to argue that rehabilitation counselors must focus primarily on the goal of employment. The solution will not be in either rejecting vocational goals or ignoring the importance of personal and social goals. A job-defined understanding of vocation seems too narrow to serve all disabled persons. Expanding the meaning of "vocation" to include any activity a person values and which has some social significance, however, may permit response to persons otherwise excluded from service and salvage at least some of the benefits of vocational technology.

Efforts can also be devoted to developing a conceptual network concerned with nonvocational personal and social goals. If these goals are precisely defined, appropriate assessment strategies suggested, and probable causal relationships stated, then a usable technology can be developed for personal and social rehabilitation which is independent of vocational goals, however defined. These changes would, of course, have clear implications for rehabilitation counselor education and training.

Is There an Ideal Curriculum for Rehabilitation Counseling?
In many ways the basic factor underlying questions of curricula is the status of the field as an emerging profession. Since a common earmark of a profession is the existence of a knowledge base transmitted through specific educational programs, the clarity and generality of the curriculum may reflect the degree of professional status. At present, the term professional tends to be used in two ways in rehabilitation counseling. The general usage referring to an individual whose work involves some skill and is full-time is still common in rehabilitation. In this sense all rehabilitation counselors are "professional";
their special knowledge and skill have usually been acquired through practical experience and on-the-job training. Specialized graduate training is relatively unimportant from this perspective, although general preservice, in-service, and continuing education may be of great interest.

Although many practitioners and administrators see no incompatibility between this view and the job requirements of rehabilitation counselors, educators generally use the more restricted definition of the term *professional*. Accordingly, they have tried to influence practitioners to seek specialized education in master's level programs, to support professional associations, and to uphold standards and ethics generated by these organizations. Students with a professional orientation have been recruited to the field.

Discussions of rehabilitation counselor role and function, as well as educational requirements, are influenced by the definition implied. Reliance on specific rather than generic skills can be seen as too "tradelike" for a profession in which exercise of informed judgment is as important as skillful performance. If education is professional rather than job-specific, it becomes important to ask questions regarding the range of knowledge and skill that will be included, the level of proficiency that will be demanded, the nature and amount of knowledge that will be borrowed from supporting disciplines, the types of settings in which knowledge will be presented, skills that will be developed, and the balance of theory and practice to be sought. On the one hand is the "idealistic" image of an independent profession which integrates a wealth of medical, psychological, social, political, and economic knowledge skillfully and humanistically in the person of a counselor. On the other hand is the "realistic" image of a civil service position which employs stereotyped bureaucratic procedures to process as many clients as possible with minimum time and cost. Obviously, neither of these images captures rehabilitation counseling as a profession. The answer in each case must be a compromise.

Rehabilitation counselor education is typically a two-year, sequential program of classroom study and field experience in-
tended to develop certain knowledges and skills, with most curricula following the ARCA standards previously mentioned (ARCA 1974). The knowledge can be described as general and specific, depending on the degree to which it is borrowed from cognate disciplines or derived from rehabilitation. General knowledge components include such topics as theories of counseling, vocational adjustment and development, and tests and measurements. Specific components include psychosocial and medical aspects of disability, rehabilitation principles and practices, and rehabilitation institutions (public and private). These are taught in a traditional academic manner with lectures, discussions, programmed learning units, visiting speakers, and classes in related departments.

Skill development is primarily a focus of the field track. The typical field sequence begins with pretraining and observation, followed by supervised field experience in rehabilitation agencies and facilities. Some programs make use of multimedia training packages in skill areas related to communication, case management, placement, vocational assessment, and medical aspects of disability. Field experiences may be concentrated in a placement of a single semester or a year following the academic program, or may be done concurrently with academic study.

The presumed purpose of these various curricular arrangements is development of the skills and knowledge of a competent, if not "ideal," rehabilitation counselor. Even if there were full agreement on the nature of a competent counselor, many curricular issues would remain, for there are many opinions about how to arrange a student's experiences to best reach a particular outcome.

A major curricular issue is the degree to which education should focus on specific job tasks. Many employers would like program graduates to be able to fill their jobs immediately, with little or no on-the-job training and without trying to change the agency's standard operating procedure. Such employers would prefer that all curricular decisions be based on task analysis, including knowledge of agency procedures and mores.
Rehabilitation counselor educators tend to believe this focus on the details of a specific job is inefficient and restrictive. While they agree that counselors must be able to perform well in existing jobs, they argue that currently unmet needs of disabled persons require professionals who can fill a number of roles and, if necessary, create new ones while making sound judgments as to which role is appropriate. Such individuals should be more adaptable and produce greater benefits for clients at less long-range cost to employers in training and supervision. Specific tasks, they say, can be more easily taught on the job. The more fundamental professional skills and knowledgeable perspective of the problems and capabilities of the system require formal graduate education.

A parallel situation exists respecting special knowledge or skills related to particular client groups. Developing curricula around diagnostic categories, such as visual handicaps or retardation, for example, may meet the needs of those groups, but may again be an inefficient use of limited graduate education resources if the basic transferable components of such curricula can be identified. Counselor roles, such as client advocacy, job development, and placement, raise similar questions. As with the other special/general issues, if an important job function does not transfer, then curricular modifications may be appropriate.

Finally, the principle of holism should be applied to education as well as to rehabilitation services. In education it is not enough to consider students’ development of knowledge and skill; their growth as individuals and professionals must be considered as well. This requires integration of various cognitive and affective life experiences. Students should be helped to use their personal assets, to clarify and to meet their chosen personal and professional goals. Since students differ significantly, an individually appropriate learning environment is required. Faculty involvement in the process, the provision of peer groups, and personal counseling opportunities are necessary ingredients. This issue is both difficult and sensitive, as it does not fit the academic tradition.

Curricular issues cannot be considered independent of selec-
tion of students. As a field develops into a formal profession the importance of selection increases, since selection for education is effectively selection for the field. Like other professions, rehabilitation counseling has no precise, commonly accepted definition of professional competence on which to base selection procedures. Terms like “mature, experienced, well-balanced, hard-working, emotionally stable, and intelligent” are typically used when the question is raised. Variables, such as work experience, commitment, personality traits, and interpersonal skill and academic ability, have been proposed and partially evaluated as selection criteria. Further characteristics, such as sex, social class, race, and presence of a disability, have been related to counseling effectiveness. Since not all applicants are ideal, it is not possible to avoid considering the relative validity and importance of the different criteria, nor would it be ethically or legally justifiable to do so. Other problems, such as the role of affirmative action, make this issue as unsolvable for rehabilitation counseling as for other professions. Since the ultimate concern with selection is professional competence and client service, its importance to employers and educators is unlikely to diminish.

Can Rehabilitation Cope with Escalated Needs and Limited Resources? The needs of disabled persons for rehabilitation have been consistently greater than the available service. All persons with some disability affecting their vocational status, but with vocational potential, are legally entitled to public rehabilitation services. Rehabilitation practitioners have hesitated to apply explicit quotas or otherwise systematically to exclude eligible persons from services. The resulting gap between need and accommodation has created a large backlog and discouraging delays. In addition, new populations have become eligible for services and more types of services have been developed. As rehabilitation services become better known and clients’ rights organizations become more assertive, the problem can be expected to intensify. Counselors and field administrators now bear the burden most directly. Case-loads are large, and counselors are discouraged from spending too much time with any one client. Unofficial production quotas
are set with little regard for the resources available to serve clients adequately. These problems are exacerbated by a recently legislated mandate to serve the severely disabled, a mandate that recognizes that these clients will require more time and resources, but how much more is unspecified.

There are several systematic ways of narrowing the gap between needs and resources. One approach may be to reduce the need for services through programs of prevention and normalization or to reduce demand through more specifically focused legislation. To prevent problems general hospitals, schools, industries, and other institutional resources can be more effectively linked to rehabilitation. Care in acute care hospitals, for example, which does not leave persons with such problems as decubiti, contractures, and psychological dependency would allow rehabilitation personnel to concentrate on rehabilitation rather than remediation. Similarly, many of the practices in institutions for the mentally ill and mentally retarded create avoidable behavioral problems that require rehabilitation counseling. Other preventative practices would include early identification of need, public education, and incorporation of rehabilitation principles and practices into acute care units and other basic health, education, and welfare services.

Normalization attempts to treat disabled persons from the perspective of their similarities to nondisabled persons, making maximum use of normal facilities. If normalization were extensively practiced, the impact of disability and demands on special rehabilitation facilities would both be lessened. Normalization would remove the requirement that deviance be maximized to obtain service, which, for example, might encourage mildly disabled youths to identify themselves as disabled in order to get help in obtaining training. This identification adds another person to the case load and might establish their lifelong disabled status.

An obvious but regressive method of reducing demand for vocational rehabilitation service is restrictive legislation. Although they will not reduce the need for help, laws and regulations can influence who seeks help and determine who receives
Regulations restricting service to groups with particular disabilities or other characteristics will eliminate many applicants. Requiring lengthy and inconvenient application procedures will discourage use of service. Generally, such control of demand is unjustifiable in any but the most superficial economic terms, is incompatible with rehabilitation principles, and results in weakening the overall program. More creative legislation could provide incentives to such institutions as schools, hospitals, and industries to encourage developing programs of prevention, normalization, and health maintenance.

Whether the need for services is reduced or not, available resources can be more efficiently allocated and more effectively managed. In the present system the same clients may have to be processed through three or more separate bureaucracies to receive all the services which they need and to which they are entitled. At the same time different agencies compete to provide very similar services to the same general target group. This system is wasteful and inefficient. Interagency cooperation has been an ideal for years, but it has infrequently been translated into a workable procedure. Resources might be allocated more carefully for research and development, management improvement, and development and testing of programs to effect more coordinated interagency and community-wide linkage and cooperation. Commitment of some resources to stimulate and support diversified staffing and operations models within organizations may suggest ways to increase individual productivity without resorting to morale-destroying “speed-up” techniques.

Several diversified staffing patterns have been discussed over the years. One popular model is the use of support personnel. When only a certain amount of money is available to provide rehabilitation services, support personnel may be effective in maximizing benefit. Support personnel can be used for tasks which do not require special training, thus freeing counselors to spend more time doing what they are uniquely trained to do. There are other advantages as well. Often, for example, support personnel who are indigenous to a community which is not that of the professionals can form an effective link between
the agency and the community. The power of nonprofessional self-help efforts is apparent through such examples as Alcoholics Anonymous and Recovery, Inc. There are few operational models to suggest how professionals can understand and utilize the principles exemplified in the self-help group approach, but effective utilization of this concept might greatly extend community rehabilitation resources. Such approaches offer consistency with rehabilitation objectives and the potential for a sort of multiplier effect on rehabilitation resources.

Counselor educators have a clear responsibility to clarify competing pressures and to offer moral support and consultation to those directly caught in the conflicts. Teaching students to function under existing conditions and being sympathetic with counselors' and administrators' problems is really not enough, however. Acceptance of current problems is only the first step toward their resolution. Clients, counselors, administrators, and educators are all involved in different ways. Educators may be least subject to contradictory pressures and thus have more responsibility for deliberate involvement.

Effective client advocacy and organizational change require complex skills which have not traditionally been a part of rehabilitation counselor education. But the emergence of client groups seeking change in the service system has focused attention on advocacy as an important issue. Counselor educators have some learning to do before the skills of advocacy can be defined, developed, tested, and taught to students.

Since educators are usually interested and skilled in research, they can make a special contribution in relating ideas and practice to data. In both research and interpretation of research, strong effort is needed to communicate both positive and negative results accurately to those who have a use for them. Teaching students how to understand and use research in their practice is difficult. Problems may exist in the way in which students are taught research, in the lack of commitment to research as a method of problem-solving, in organizational patterns which resist incorporation of new information, or in the general kind and quality of research done.

If effective, some indicated educational changes could influ-
ence how the service delivery system responds to the supply/dem-
mand gap. Similarly, changes in the delivery system may imply cor-
responding educational changes. Continued development of infor-
mation exchange and cooperative efforts to address fundamental prob-
lems seem necessary, though differences in perspective, interest, and immediate concerns are likely to cause frustration and difficulty.

Who Decides What Rehabilitation Counselors Should Be Taught? Many persons and groups have a legitimate interest in the education and training of rehabilitation counselors. The university programs which grant degrees, the Rehabilitation Services Administration (RSA) central and regional offices which fund some training, and the public and private agencies which employ rehabilitation counselors all affect the process and content of rehabilitation counselor education. Others involved include the counselors receiving training and ultimately, the rehabilitation clients. Members of special disability groups, consumer interest groups, operators of rehabilitation facilities, and others have special interests in certain aspects of counselor education and training.

When these groups disagree, problems can arise. The disagreements and problems are generally predictable and resemble those in other professions. University educators wish to graduate students who can help the profession become what it should be. They want university curricula to include content relating to how clients should be served under ideal circumstances. RSA staffs also may wish to use training to bring about changes; however, their intentions usually involve upgrading the skills of rehabilitation workers to better meet legislated mandates. Employers of counselors may want training programs that produce graduates who can learn a job quickly, without orientation or supplementary training. Students in a graduate program or trainees in a one-day conference generally have their own ideas about what they want to learn. Clients are seldom asked for their opinions on the training of counselors, although presumably their evaluation of a counselor's performance should be an important criterion of training success.
On the other hand, having several groups concerned with curriculum can have very beneficial results. When others besides a university curriculum committee or an in-house group examine a curriculum or a training conference program, the rationale for each part of the content must be strong. If only one part of the constituency has real power, it is likely that the eventual result would be a more limited curriculum.

Each of these groups, then, has both a perspective which determines goals and at least some power to enforce its evaluation. Rehabilitation counselor education shares with most professional education the concern that accountability be tied to an evaluation which is both data-based and “fair.” Traditional methods of educational evaluation, such as student program evaluation, review of student performance, and follow-up of graduates, have been adopted by most programs.

Efforts have been made by the professional organizations within rehabilitation counseling to establish their own standards of evaluation and accountability which extend beyond the concerns of any single agency or job. The program of certification is an example of their concerted effort. Licensing for counselors is being discussed; since it is concerned with the monitoring of professional standards by government it, too, is related to the issue of accountability.

Accreditation procedures developed in rehabilitation counselor education provide a set of standards and relevant data by which academic programs can be evaluated. The extensive pool of directly comparable program descriptions and faculty, student, agency, and employer opinions, gathered during the CORE accreditation process, also promises to be a most valuable data source. Peer review of program proposals conducted by RSA provides a mechanism for extrauniversity, nongovernmental evaluation and provides the federal agency with information relevant to responsible funding. Competency-based models of education have been suggested as a solution. This approach has the advantage of insuring demonstrable minimum achievement levels, but it requires more specificity about goals and weightings than now seems available.

Taken together, these partial solutions provide relevant data.
They do not directly address the wider issue of what educational accountability should include and what type of evaluation is needed to make rational and empirical decisions about improving or eliminating programs. In each of these instances there is a sense that accountability and evaluation are appropriate, but there is also uncertainty over exactly what should be observed. The diversity of perspective which must be considered, along with the many existing technical problems, suggest that this issue will not soon be resolved. As with other issues, serious concern exists that in the process of resolution the basic principles of rehabilitation not be contradicted. Additionally, there is concern that the control involved in accountability not become the tool for enforcing unilateral management decisions.

Summary of Issues. The recital of these issues and their ramifications should sound familiar to anyone acquainted with the history of education in any profession. They are the inevitable frictions arising from the conjunction of many persons whose visions only partly overlap, whose goals may differ, and whose paths to the goals do not always run together. The fate of rehabilitation counseling as a profession lies in the resolution of these issues.

The most basic issue often left unspoken is the question “should there be rehabilitation counselors?” Most rehabilitation counselors and their educators clearly feel that the answer is yes. Rehabilitation counseling was born out of a need unmet by other professions; there is no good reason to think that now the need is less or the ability of other professions more. But given the need, the remaining issues determine who rehabilitation counselors are and how they are to be prepared. The issues in rehabilitation counseling are complicated by the role of the government, which is ultimately the resource for much of what counselors do, and by counseling’s lack of a strong tie to an established profession like medicine. The presence of many forces with an interest in rehabilitation counseling is both a weakness and a strength. The many influences make consensus difficult. But the field is not dominated by any other profession, and this independence may contribute to the achievement of new solutions to old problems.
Rehabilitation counselor education represents a comprehensive human resource development program which is partially funded and instituted. Its many facets include graduate programs and other training formats, such as in-service and continuing education programs. These diversified training modalities prepare psychological counselors, with special knowledge of the psychosocial and vocational concerns of the disabled, to work in public and private agencies that deliver community-based service. Although training may emphasize a psychological base, the counselor recognizes the multidisciplinary approach needed for successful rehabilitation efforts and services.

Rehabilitation counseling is, compared with other health professions, neither old nor new. Still in the unfolding phase of its history, it has enough background to know what the issues are but lacks the maturity needed to resolve them. Its roots are in both medical and social sciences, without a total reliance on either. Rehabilitation counseling can best be understood as a blend of many professional and philosophical approaches to the holistic problems of persons with disability. Whether rehabilitation counseling grows as a profession will depend on many factors; but if the vigor of its practitioners is any indication, it will prosper.

Self-direction, as evidenced in the recent movements toward increased professionalization, prepares both counselor education and counseling to confront major problems and concerns of the helping professions, such as evaluation, accountability, prevention, and service delivery, which bear major implications for shaping rehabilitation effort and improving services.

References


______. 1958c. The nature of rehabilitation counseling curricula. Paper read at the APGA Annual Convention, St. Louis, Mo., April 1, 1958.


Williamson, E. G., and Bordin, E. S., 1945. Occupational rehabilitation coun-


Respiratory therapy as an allied health profession has achieved some public understanding only in the past few years. If the respiratory therapist was once thought to be engaged in "something to do with breathing," it is now rather widely known that his functions spread over the whole spectrum of pulmonary diseases and cardiopulmonary life-support systems. At least some of the procedures within the field have gained general visibility.

Today's respiratory therapist is a well-trained individual who provides critical-care technology in acute situations involving sophisticated life-support systems, as well as filling the traditional role of therapist in cases involving rehabilitation from chronic respiratory diseases. The respiratory therapist's duties and responsibilities have paralleled the rapid technological change evident throughout the medical field, and not least in the cardiopulmonary sciences.

Diseases related to the lungs and respiration constitute a large health problem in the United States. A 60 percent increase in lung cancer deaths occurred during the 1960s. Lung cancer accounted for more than 70,000 deaths in 1971. Deaths from chronic bronchitis increased almost 85 percent during the last decade, and deaths from emphysema, by more than 150 percent. Various sources report that current incidences
of all respiratory diseases affect between 10 and 40 million Americans. Both young and old are affected by these diseases, with an annual estimated cost to the nation of over $17 billion. Respiratory diseases can affect individuals at birth with neonatal respiratory distress syndrome; through childhood and young adulthood, in the form of fibrotic and immunologic lung diseases which can lead to chronic obstructive lung pulmonary diseases; and in adulthood, with various types of chronic obstructive pulmonary diseases, including emphysema and chronic bronchitis. Emphysema is now the third leading cause of worker retirement on social security disability payments.

The alarming increase in chronic respiratory diseases, as well as the increasing need for treatment of acute respiratory conditions, creates a compelling need for trained allied health specialists in this field.

In 1947 the predecessor to the present American Association for Respiratory Therapy (AART) was formed in Chicago. This organization, founded by a small group of respiratory therapy workers and physicians, was established for the purpose of advancing the science, technology, ethics, and art of respiratory therapy (then called inhalation therapy). Through meetings, institutes, lectures, publications, and other means the AART encouraged professional development of workers in this field.

AART's growth in membership from 2,500 to 20,000 between 1947 and 1978 largely parallels the growth in numbers of all allied health workers in respiratory therapy. Most of this growth has occurred within the last five to ten years.

Though the field of respiratory therapy is now thirty years old, its most significant growth and development has occurred within the last ten years. The newness of the field parallels the rapidity of technological change found in today's society and in health care.

The respiratory therapist most probably can be traced back to the hospital orderly who had responsibility for moving large and cumbersome oxygen tanks from a storage area to a patient's room. He became known as a "tank jockey." Later, the
orderly began setting up the simple equipment in conjunction with oxygen administration and, still later, he evolved to actually working with patients in the administration of oxygen and related tasks. As the oxygen service grew in size, the orderlies who had been assisting with equipment and basic administration of oxygen, began to specialize in this area. When some were assigned to these tasks on a full-time basis, the first elements of the “speciality” of respiratory therapy had begun. Very often the oxygen service and its orderlies worked out of central supply or simply a closet located somewhere within the hospital. In time, both the volume of service and the number of individuals employed multiplied. The oxygen service gradually became known as the oxygen therapy department, and increases in responsibilities and procedures occurred. During this period many of the procedures performed by oxygen therapy personnel had been borrowed from the field of nursing. When the nurse did not have time to perform breathing treatments or to set up and administer oxygen through devices associated with its use, the oxygen therapist stepped in to fill the void, assuming duties that had been traditionally performed by nurses and other health workers in the hospital.

In the late 1950s and early 1960s the oxygen therapy field gradually began to take on a professional identity and became known as inhalation therapy. At that time inhalation therapists were identified as having a certain level of professional competence and status. They were no longer merely individuals borrowed from the orderly ranks, or some other area, and pressed into service to perform basic functions and treatments. They were now knowledgeable of equipment and of some basic anatomy and physiology, and they possessed special knowledge that few others in the hospital setting had. At the same time, large technological advances in the care of critically ill patients emerged in various means of continuous mechanical ventilators and other types of respiratory life-support systems. As this equipment became much more sophisticated, the inhalation therapist became even more of a specialist and professional. New modalities and procedures involving blood gases and data interpretation in order to monitor the physio-
logic status of patients on continuous mechanical ventilation created an ever-increasing sophistication of knowledge and application for the therapist.

During the late 1960s and early 1970s the name of the field was gradually changed from inhalation therapy to respiratory therapy to reflect more accurately the nature of the work performed. Respiratory therapy remains the name today, although further changes may be necessary in the future to cover a broadening scope of modalities and functions performed by the respiratory therapist, including cardiopulmonary technology. Today the respiratory therapist is already involved in a wide range of activities, and subspecialties are developing in such areas as neonatal-pediatric care, pulmonary function testing, cardiac catheterization procedures, extracorporeal circulation, intensive respiratory care, and the traditional areas of education and administration.

One motivating factor for hospitals to employ skilled respiratory therapy personnel, in addition to improving patient care, is economic. A hospital may generate revenues two to three times its expenditures for respiratory therapy service. For example, it is not uncommon for a 300- or 400-bed general hospital to budget $300,000 to $400,000 each year for respiratory therapy personnel, equipment, and supplies, and to generate revenues of a million dollars or more.

The desirability of this economic situation may be questioned, depending on one's perspective. Some view it as running counter to current cost-containment concerns in health care; others, however, note that the improved services meet previously unfilled needs and improve the health status of patients. The increase in both volume and kinds of service parallels the increased application of technology in medicine and a corresponding rise in the cost of patient care.

**Levels of Personnel**

The individual in the field of respiratory therapy may be at one of three levels of training and experience. The first level consists of those who have received only on-the-job training
and who have no professional credentials to demonstrate their level of competence. Their actual competence may vary widely from rudimentary skills to the ability to deal with complex procedures. Thus the person who is on-the-job trained, even if knowledgeable in certain areas, may lack knowledge in necessarily related areas and have a very narrow view of the patient’s condition.

The second level covers the respiratory therapy technician who has passed a national credential examination to become a Certified Respiratory Therapy Technician (CRTT) and who may have been examined on the basis of either a one-year formal training program or a number of years of on-the-job experience. Today only individuals who are graduates of approved one-year training programs are allowed to sit for the CRTT examination. This level denotes professional competence in certain procedures which may or may not involve working with critically ill patients.

The third and highest level is the Registered Respiratory Therapist (RRT), who is nearly always a graduate of a two-year, approved training program. RRTs have completed national credential examinations consisting of both a comprehensive written examination and an oral examination. Today’s respiratory therapist is trained to perform a wide variety of tasks ranging from critical-care, life-support technologies to rehabilitation of those with chronic diseases. The registered respiratory therapist is involved in the testing and measurement of respiratory parameters and the evaluation of physiologic and other data relating to the medical status of the patient, and he is knowledgeable in the utilization of respiratory equipment.

**CREDENTIALING**

Professional recognition of respiratory therapy personnel occurs through national credentialing as opposed to state licensure. Only Arkansas has a licensure act applying to respiratory therapy personnel, although a number of other states are looking at the possibility of adopting licensure acts. Nationally
recognized credentials, instead of state licensure, facilitate geographical mobility and a national standard of competence for respiratory therapy personnel.

The credentialing organization is the National Board for Respiratory Therapy (NBRT). This organization was formed in June, 1974, from a previously existing credentialing organization, the American Registry for Inhalation Therapy (ARIT). The NBRT grants credentials at both the registered therapist and certified technician levels. The respiratory therapist credential is designated RRT which stands for Registered Respiratory Therapist. This title replaces the previous ARIT, which indicated membership in the American Registry for Inhalation Therapy. (The title was changed from ARIT to ARRT in 1974, but because of confusion of the designation with radiologic technology, and a resulting lawsuit, the designation for the registered respiratory therapist was changed in 1977 to RRT.) The technician level credential is designated by CRTT, which stands for Certified Respiratory Therapy Technician and replaces the old CITT, which stood for Certified Inhalation Therapy Technician.

In 1961 the first registry examinations were given by ARIT. Since that time, educational and other requirements of qualification have been increased. In 1969 the first technician certification examinations were given by the Technician Certification Board of the American Association for Respiratory Therapy. Beginning in 1974, with the initiation of the National Board for Respiratory Therapy, both the RRT and CRTT examinations were administered by the NBRT. Thus the certification and registry examination systems were merged under one credentialing body.

NBRT conducts examinations to test the qualifications of voluntary candidates for credentialing. At present approximately 6,000 have completed the requirements to become registered therapists (RRT) and about 18,500 have passed the examination requirements for certified technicians (CRTT). These credentials indicate a minimum level of capability.

The RRT must now be a graduate of a therapist-level training program (a minimum of two years) approved by the
American Medical Association in conjunction with the Joint Review Committee for Respiratory Therapy Education. The RRT must also have completed one year of clinical work experience under medical supervision following graduation and have successfully passed both a comprehensive written examination and, following that, an oral examination administered by both a therapist and a physician. In November 1977 admission to the registry examination was expanded to include CRTTs with three years of clinical experience after certification, plus 62 semester hours of college credit. The CRTT must be a graduate of an AMA-approved, technician-level program (minimum duration of one year), have completed one year of clinical work experience under medical supervision after graduation, and have successfully passed a comprehensive written examination.

The pass rates on the RRT exams have been low compared to other health professions credentialing exams. There have been a great deal of discussion and concern regarding this situation and the possible reasons for it. Whether it results from poor educational preparation due to inadequate instruction or inadequate essentials for program content, or from an excessively difficult or inappropriate examination process, or from neither of these factors, the problem continues to be debated within the profession. A further decline in the pass rate followed changes in 1975 by the NBRT on its written examination, from a norm-referenced exam where the criteria for passing were determined after administration of the exam, to a criteria-referenced exam where the criteria for passing are set before administration. The pass rate is now approximately 50 percent.

Respiratory therapy is unusual among allied health professions in requiring an oral examination for therapist credentialing. The exam has both ardent supporters and severe critics. As a measure for assuring quality of practitioners it has been criticized as too subjective, with inadequate preparation for examiners. But its advocates claim that mechanisms incorporated into administration of the exam insure uniformity among examiners. They stress that an oral exam allows for
measurement of variables important to clinical functioning which cannot be adequately measured by a written exam. Because of the continuing concern and the high cost of administering an oral examination, NBRT has developed and is evaluating a clinical simulation examination as a possible replacement for oral examination. The clinical simulation examination is a branching logic examination with re-entry capability, visual simulation, and latent image responses on computer cards.

**Educational Program Accreditation**

Despite an effective credentialing mechanism, the large demand for respiratory therapy services has caused a proliferation of unqualified practitioners. Education and continued self-improvement are seen, then, as keys to the future of the respiratory therapy field and to professional recognition for personnel.

The United States Commissioner of Education has recognized the Council on Medical Education of the American Medical Association as the body to accredit educational programs for respiratory therapy. Accreditation of educational programs is granted according to the recommendations of the Joint Review Committee for Respiratory Therapy Education (JRCRTE). Both technician and therapist programs are currently evaluated for accreditation by JRCRTE on the basis of the *Essentials and Guidelines for an Approved Educational Program for the Respiratory Therapy Technician and the Respiratory Therapist*. The *Essentials* are developed by JRCRTE and approved by the American Medical Association. The *Essentials* were approved in 1962, and revised in 1967 and 1972. A third revision was approved in 1977. JRCRTE is composed of two representatives from each of three physician groups—the American Society of Anesthesiologists (ASA), the American College of Chest Physicians (ACCP), and the American Thoracic Society (ATS)—as well as six representatives from the American Association for Respiratory Therapy (AART). The composition of this group testifies to the close working relationship
which exists between physicians and respiratory therapy personnel. In 1977 there were approximately 185 therapist-level programs and 190 certified technician-level programs in the nation. At present there is limited articulation between therapist-level and technician-level programs, a situation impeding those who seek upward educational mobility. While most therapist-level programs award an associate degree, a number offer a baccalaureate degree. Some of the baccalaureate degree therapist programs provide training beyond what is required in the JRCRTE Essentials. There is some discussion that in the future all therapist-level programs must be at the baccalaureate level, while technician-level programs move to associate degree status. Some also see the need for a greater proportion of technician-level than therapist-level graduates. In regard to both levels, however, and their relative numbers, the field must be cautious of professional and degree aggrandizement.

Respiratory Therapy as an Allied Health Profession

Respiratory therapy is experiencing many of the same problems manifested in other allied health specialties. Of an estimated 70,000 workers in the field in some capacity, only about 25,000 hold any type of professional credential. This situation creates anxiety and potential conflict between workers with and those without credentials. There also may be wide variance in the knowledge held by individuals within these two categories. Many challenges are being raised to barriers for entrance into the credentialing system, such as graduation from approved schools. Many noncredentialed workers are asking to be allowed to demonstrate their knowledge and proficiency obtained during work experience. Professional mobility, status, and financial rewards are concerns of many workers. New mechanisms for upward career mobility are being investigated and some of these will be discussed later in this chapter. Other issues involve specifying exactly what are the differences between the two recognized professional levels—the certified
respiratory therapy technician and the registered respiratory therapist. It is common knowledge that in many instances the certified technician and the registered therapist perform many of the same functions and that no clear delineation exists within the field in general or among the various hospitals where they work.

Respiratory therapy appears to be moving toward a broader base which encompasses many clinical practices now being performed by other identified allied health personnel. It has been estimated that the work of existing respiratory therapists overlaps that of at least twenty-five other separately identified areas. AART is studying the possibilities of incorporating many of these specialties and personnel into one umbrella organization which would tie together workers in a functional sense, as well as within one overall professional organization. There is, of course, some resistance to this suggestion by those specialties which are advanced enough to gain some measure of organization and recognition on their own. It has been argued that the same core of knowledge and similar skills are required in each of the cardiopulmonary areas and that an umbrella organization would facilitate the training of personnel in each. It is also argued that one overall organization would better represent the individuals involved. Whether such an organization can be successful remains unclear.

**Roles and Functions**

In 1973 AART completed its first major project with the National Institutes of Health in the development of a continuing competency system for respiratory therapy. The publication that resulted from this project was *Delineation of Roles and Functions of Respiratory Therapy Personnel.* Its primary purpose was to identify and delineate roles and functions for respiratory therapy personnel which represented the position of the professional at that time and to identify functions appropriate to respiratory therapy itself. Once these roles and functions had been identified, proficiency examinations were developed for two levels within the profession.
Secondary to these efforts, the document provided the foundation for a curriculum guide to be used in respiratory therapy educational programs. The project report consisted of a detailed listing of tasks and knowledge necessary to function at a given level. It identified four levels of practitioner:

**Level I:** Primarily on-the-job-trained individuals who are equipment oriented. Their work requires little independent judgment, no prior experience in respiratory therapy, and limited patient contact, if any.

**Level II:** Proficiency at Level I tasks would be required. Personnel would provide respiratory care to all patients except those requiring intensive care. The immediate supervisor should be either a Level III person or a Level II with several years of clinical experience. The Level II individual must be able to administer aerosolized drugs as prescribed by a physician, to implement infection control measures, and to handle Level III tasks only under the direction of a Level III practitioner. The scope of this level is technical in nature and consists primarily of carrying out specific assigned tasks.

**Level III:** Proficiency required at Level II tasks as well as those identified as Level III. The Level III individual provides respiratory care either under direct or indirect supervision of a physician or Level III individual with several years experience. The scope of function includes continuous ventilation, airway maintenance, emergency care, pulmonary function testing, and other advanced procedures. Level III personnel must have the knowledge and skill necessary to treat cardiopulmonary diseases.

**Level IV:** Personnel must be proficient in tasks requiring extensive clinical experience in respiratory therapy and in all Level III skills; able to function in unsupervised patient care requiring individual judgment; and possess advanced skills in management, education, or critical care.

Because Level I is defined as the entry level and Level IV deals primarily in education, management, and specialty areas of critical care, proficiency examinations were not developed for these levels and have not been utilized to evaluate or measure competency. Their utilization in the future is uncertain. The Level II and Level III practitioners relate very closely to the existing classification of Certified Respiratory
Therapy Technician and the Registered Respiratory Therapist, respectively.

Although this concept of personnel at four levels has not been implemented, the task descriptions have provided a foundation developing measures of competency, educational curricula, and career mobility processes.

**Competency-Based Curriculum**

A Guide for Respiratory Therapy Curriculum Design was published in 1974 as an outgrowth of Delineations of Roles and Functions for Respiratory Therapy Personnel. As a resource for educators, the curriculum guide provides the basic instructional content programs must include to be accredited through the Joint Review Committee for Respiratory Therapy Education.

Because respiratory therapy is still relatively young among the allied health professions, most educators come from clinical practitioner backgrounds; many therapists holding teaching positions have little or no formal training in education and instructional techniques. The guidebook provides a frame of reference for developing a rational curriculum for training respiratory therapists and technicians. It has been responsible for a rapid development and upgrading of educational programs. The guidebook utilizes behavioral objectives, teaching strategies, suggested content areas, and selected reference material to be utilized in curriculum programs. It is based on a core knowledge in basic science and a professional content knowledge background. That is, the student is expected to have knowledge of certain areas in chemistry, physics, basic anatomy and physiology, and related sciences prior to beginning the module in the respiratory therapy curriculum. Each course module can be subdivided into four areas: (1) an introduction to the module; (2) theory and operation of equipment relating to the mode of therapy; (3) therapeutic techniques and their application in a supervised laboratory setting; and (4) the clinical practice component.
The guidebook represents a major commitment by AART to the development of a quality educational basis for the practice of respiratory therapy. Such projects as *Roles and Delineation of Function*, the guidebook, and the development of proficiency and equivalency examinations have formed the basis for a system geared towards competency-based education. The essential skills and knowledge necessary for functioning as a practitioner are stated in behavioral terms and thus allow for the development of valid and reliable evaluation instruments.

The American Association for Respiratory Therapy is involved in a project under the Health Resources Administration of the Department of Health, Education and Welfare for the development of a continuing competency system for respiratory therapy personnel. The findings and recommendations resulting from this study will have an impact on the decision whether continuing competency will be determined by a CEU system or mandatory reexamination.

A major concern has been the tremendous amount of change in pulmonary medicine during the last twenty years. New modes of therapy, new types of life-support systems, and expanding roles for nonphysicians have created a situation where respiratory therapists must continually reevaluate their role in the delivery of quality health care. The therapist must accept expanding roles in areas previously closed to him. For example, in the last five years therapists have become increasingly important in neonatal, pediatric, coronary, and surgical intensive care units where increasing reliance has been placed on life-support systems. In addition, they are expanding their work into diagnostic and rehabilitation service areas. In such a dynamic situation it is natural that deep concern exists over continuing competency, a concern shared by respiratory therapy and other health professions.

Under study at present are two major methods of continuing competency evaluation. One is that of mandatory reexamination at some specified interval; the other is the use of continuing education programs.
Among the more traditional health professions, respiratory therapy is unique in that it is possible for individuals to work in a patient-care situation without formal training in respiratory therapy or without professional credentials. It is necessary to keep in mind that this is a young profession and that the educational structure is only about fifteen years old, with the predominance of credentialed workers occurring only within about the last five years. Many students entering formal respiratory therapy educational programs already have significant clinical experience providing respiratory care. In recent years, this has created a major interest in trying to develop advanced standing mechanisms for students in respiratory therapy programs. In fact, this is one of the foremost issues in the profession. A great deal of effort has been made in developing advanced standing procedures for use in the schools.

It goes without saying that experience is the most important factor in learning. Medical and health professional programs have utilized this concept in moving students through the educational experiences which lead to the appropriate degrees and/or professional credentials. Most programs combine lecture, seminar, laboratory practice, and clinical experiences to make up the student’s learning situations. These are planned and controlled experiences vital to the educational process; however, a great deal of unplanned experience also occurs for many individuals working in hospitals or clinics. These incidental experiences vary, and the amount of learning that an individual will derive from them will depend upon many factors.

The challenge now facing professional programs is how best to evaluate prior learning experiences, planned or unplanned, and to utilize these for advanced standing in professional health programs. In 1976 the Career Mobility Subcommittee of AART published a Guidebook on Advanced Standing for Respiratory Therapy Educators. This publication represents a strong foundation upon which educational programs can be built to attract potential students from varied backgrounds.
The guidebook is developed from the philosophy that a sound advanced standing program must depend on how a given educational institution is able to answer or handle three considerations: (1) a well-defined curriculum; (2) various institutional standards; (3) individual orientation.

Any advanced standing policy results from decisions which must be made within the educational program for the development of realistic mechanisms for educational vertical mobility. The program curriculum must be well defined, so that prior experience can be evaluated for credit. Included in this definition of curriculum is a written program philosophy, the identification of minimum competencies, and goals and objectives that are consistent with the philosophy and expected overall outcomes. This aspect of the guidebook is straightforward and easy to understand.

The guidebook's second consideration deals with institutional standards relating to transfer of credit and policies of advanced standing. Individual program policies must be consistent with those of the college or university. This section of the guidebook deals with such specifics as screening, documentation, and verification of previous work experience, and integration of the advanced standing student into the remainder of the curriculum. Also dealt with are the cost of advanced standing evaluations, limitations on credit, and the relationship to professional credentialing.

The third area deals with individual orientation or, more specifically, student advisement, an area representing the crux of a successful, advanced standing mechanism. Every advanced standing student represents an individualized curriculum and therefore should have an individual program plan. That is, the courses, modules, curriculum components, or clinical experience for which the student is being considered in advanced standing must be identified, and the mechanism for determining equivalency must be clearly stated. Several strategies are identified and listed so that the educator interested in developing advanced standing policies may evaluate how or whether such strategies fit into his particular institution. Included in these strategies are: transfer credit, credit by examina-
tion, equivalency tests, achievement tests, challenge examinations, proficiency examinations, and credit for prior experiences.

The purpose of the guidebook is not to provide a "cookbook approach" to advanced standing policies within educational programs, but rather to identify potential problem areas that would inhibit or prevent the development of a viable advanced standing mechanism in the educational structure.

Related to this concept of career mobility through advanced standing is the concept of the external degree. The external degree is a highly controversial topic in academia. Most successful external degree programs are in the areas of the social sciences and humanities. Respiratory therapy is looking closely at this concept of a nontraditional means of receiving college credit and is involved in developing models for the administrative form of an external degree. These models will be studied carefully for their applicability to the health professions. This issue is exciting and challenging for the profession.

The purpose of discussing Roles and Delineations and the Curriculum Guide, as well as the Guidebook on Advanced Standing has been to demonstrate those issues respiratory therapy considers vital. As a young, dynamic profession, respiratory therapy is greatly interested in nontraditional ways of providing health care and educating health care professionals. Career mobility, professional growth and development, and continuing education represent the pulse that drives respiratory therapy. It is not easy to sit back and project the direction in which any given health profession is likely to move. Respiratory therapy anticipates an exciting move forward. In 1974 the National Heart and Lung Institute and the American Thoracic Society supported the so-called Sugarloaf Conference: A Conference on the Scientific Basis of Respiratory Therapy. This conference, designed to appraise the efficacy of what is being done in respiratory care, represented a self-study. The conference provided a new foundation for professional growth through demonstrating the need for a more scientific approach to patient care by allied health professions and showing the need for continuing education.

The future of any endeavor is determined, at least in the
short to intermediate term, by forces which impinge upon it in the present. Forces found within respiratory therapy which are providing directions and shaping the future include the salient issues previously discussed and such others as the expanding role of the respiratory therapist, the *Standards for Respiratory Care* of the Joint Commission on Accreditation of Hospitals, professional identity, potential entropy and self-defeating mechanisms by inflated self-interest, national health insurance, home care, and recredentialing.

If the future of respiratory therapy is to be summed up in a sentence, it would have to be something like this: Respiratory therapy will endeavor to improve patient care through critical self-evaluation of the profession, the professional, and the efficacy of patient care.

**Notes**

1. American Association for Respiratory Therapy, 7411 Hines Place, Dallas, Texas 75235.
2. National Board for Respiratory Therapy, 1900 West 47th Place, Westwood, Kansas 66205.
REVOLUTION IN
DIETETIC EDUCATION

Maxine Hart

Nutrition is in the limelight! There are sound reasons for this, including increasing evidence of a direct relationship between health and nutrition and growing public awareness of the socio­logical, psychological, and economic factors that influence people's food choices and ultimately affect their nutritional status. Diseases in which nutrition is increasingly implicated as a key factor are the major health problems in the United States: they include ischemic heart disease, hypertension, cancer, diabetes, and other chronic diseases. The relationship of nutrition to these diseases is complex, and not always agreed upon, but the evidence for a relationship is so strong that it cannot be ignored.

Studies such as the Ten State Nutritional Survey (conducted in the early seventies by the federal government) show that even with a more than adequate food supply many segments of American society are malnourished—children, the elderly, and the poor being the most vulnerable groups. Paradoxically, a large portion of the population is overnourished. Accordingly, programs have been established aimed at modifying the eating patterns of the obese. These and other preventive nutritional programs are certain to grow, and increasing thought will have to be given to why people eat as they do.

Dietitians are the translators of nutrition principles to the public. During this era of heightened interest, dietitians are finding themselves having to debate, defend, explain, and recom-
mend nutritional principles, trying to strike a balance between these principles and their clients' food preferences.

Large percentages of dietitians have traditionally been employed in hospitals, where they have been responsible for the administration of food production and the nutritional care of patients. Yet varying numbers of dietitians have always engaged in professional activities outside of health care settings, and their numbers are expanding as such employment opportunities increase. Greater numbers are becoming self-employed as consultants serving nursing homes, extended care facilities, and clinics. Community programs such as meals for the elderly and school lunch programs are employing dietitians both to administer food service systems and to teach nutrition.

The dietitian is also entering the marketplace. Pharmaceutical companies are employing them as sales representatives and contact persons. Food and equipment purveyors are adding dietitians to their staffs and promoting some to top management positions.

There are 31,751 dietitians in the United States now, and it is estimated that 56,000 college-educated dietitians will be needed here by 1980. The field is almost keeping up with the projected need, though some parts of the country are oversupplied with dietitians and others don't have enough. In the educational process, ever greater numbers of dietetic students are being graduated.

Within the past twelve years there has been a transition from a "four-plus-one" (four years of college and one year of internship) educational pattern in dietetics to four-year coordinated programs in which the clinical and didactic dietetic components are interwoven throughout the curriculum. The intent of the coordinated movement was quality education, but both quality and quantity have resulted: more dietitians are entering the profession than previously.

The coordinated programs are located in colleges of medicine, schools of allied health, and schools of home economics, utilizing large medical complex facilities for their clinical practicums. This change in location affords dietetic students
added opportunities to work cooperatively with other allied health professionals.

A significant step in this transition was the formation in 1970 of a Study Commission on Dietetics under the chairmanship of John S. Millis. The eight-member commission came into being at the request of the executive board of the American Dietetic Association (ADA) and the governing board of the ADA Foundation. It was composed of leaders in dietetics, clinical medicine, public health, health science education, nutrition science, the food industry, and hospital administration. All were noted for their concern for the advancement of education and health services of many kinds.

A major finding in the commission's 1972 report, "The Profession of Dietetics," concluded:

In the opinion of the Study Commission, the current system of educating and training dietitians is deficient in several important ways. The Commission believes that the following matters require attention and imaginative change to make the education of dietitians more effective.

The amount and quality of nutrition science learning seem inadequate to form a firm base for the practice of a health service which needs to be clearly professional in its competence.

Basic knowledge and its application in a practicing art are now acquired at different times and in different environments. Education would be both more effective and more efficient if science and art were learned concurrently.

It appears that there is a great variation in the quality of instruction and learning opportunities. This variation may well be so great as to lead to an unacceptable minimum of educational quality.

Dietetic education appears to lack a clear identity within higher education and its institutions. Its attractiveness and recruiting potential may thus be impaired.

As a health science, dietetic education is not sufficiently related to other health professionals.¹

Stimulated by the Study Commission's report and a shortage of internships for their graduates, dietetic educators brought about a revolution in their field. Since publication of the re-
port, sixty-eight accredited coordinated undergraduate programs (CUPs) have been established across the country, bringing the total to seventy-four. An increasing number of these programs are located in large medical centers and in schools of allied health where the students participate in the goal-setting and learning processes of their programs which provide coordinated, reality-oriented experiences.

The seed for the coordinated movement was planted at Ohio State University by Martha Nelson Lewis. In 1961 the first students were admitted to the medical dietetics program in Ohio State's College of Medicine. This program was unique because the clinical experience, formerly available only in the year of internship, was interwoven into the junior and senior years of the college curriculum. "This type of clinical experience in a hospital environment," Mrs. Lewis said, "enables the student to discover the human relations factors inherent in the profession of dietetics and should serve as the motivation for more advanced study in this critical area."^2

Numerous changes have taken place in dietetic education as a result of the CUPs: curriculum revision has been widespread; long-used syllabi have been replaced with annually revised editions. Instructors grappling with the new concept of coordination find the sequencing of learning experiences a challenge, necessitating continuous experimentation. They are unlikely to settle into a rut.

Pure academicians have had to face the reality of the clinical setting. Instructors can no longer say, "That will be covered in the internship." The walls of dietetic college classrooms have expanded into hospitals, outpatient clinics, community health agencies, rehabilitation centers, and college and commercial food service facilities. Instead of relying on the security of the teaching podium, the dietetic instructor is expected to serve as a clinical role model for students. When interviewing skills are being discussed, the student will view critically the instructors and staff dietitians modeling this procedure, and in turn the students will pass in review when interviewing clients. Student and faculty are no longer dealing with cognitive facts alone, such as the listing of the characteristics of a good inter-
view; they must also consider the feelings and attitudes of the student and client. A judgment has to be made whether the interviewing process has been acceptable or not.

Evaluation of the program, instructors, and students is more intense in the coordinated programs than in traditional dietetic programs. Affective objectives permeate the courses and account for a new intensity of evaluation. Values and attitudes of clinical instructors, staff, and students surface constantly, and in this way the rigid classroom atmosphere of twenty years ago is eliminated.

Students are encouraged to view critically the dietetic role models surrounding them and to decide ultimately how they themselves will function as professionals. Faculty and staff who are role modeling for students must be able to survive the constant analysis.

Instructors work closely with students in supportive tasks, monitoring their performance and giving encouragement. The instructor is a powerful influence in the student's life and performance.

Many programs are moving into Competency-Based Dietetic Education (CBDE), which requires clear identification of the role of the practitioner and the level of competencies the student will need to enter the field. This trend results from replacement of the purely cognitive approach with the actual practice of the specialty.

The term *competency-based* cannot be defined in a single sentence; its meaning emerges from the complex of characteristics of this educational mode.

Traditional programs expose students to a specific number of courses and clinical experiences within a certain time frame. The assumption is that if the student completes the courses and achieves a certain grade point average he is ready to practice dietetics. In a CBDE program students deal with a number of essential competencies, performing these in their own way and at their own rates of speed.

Competency-based instruction encompasses the learning assumptions delineated by John Carroll and Benjamin Bloom, who contend that aptitude can be gauged by the amount of
time required by the student to master a learning task. Carroll and Bloom see mastery learning as theoretically available to most students if they are given ample time for learning and instruction appropriate to their individual learning needs and styles. The task of effective instruction then is to accommodate individual learning differences so that most students can acquire the skills, understandings, and attitudes needed to practice the specialty.

CBDE includes essential elements, implied elements, and related and desirable elements. The essential elements require that CBDE programs: (1) focus on dietetic competencies to demonstrate which ones are role derived; (2) state these competencies in behavioral terms so that they are observable and measurable; (3) state the competencies publicly; (4) measure the competencies by criterion-referenced standards (based on mastery rather than norms); (5) consider the learner's performance, not just his knowledge, as primary evidence of ability to practice dietetics; (6) permit the student to progress at his own rate.

Beyond these required essential elements, CBDE advocates imply other characteristics such as preassessment procedures that promote "opting out" of experiences in which competency already has been demonstrated; strong emphasis on providing the learner with feedback, permitting him to see, hear, or feel how he or others react to his performance; emphasis on exit rather than entrance requirements; and student accountability for progress and performance.

Other related and desirable characteristics include these: the CBDE program is field-centered, clinically oriented, and based on parity of decision-making among universities, dietetic educators, the professional association, and practicing dietitians. Competencies include "knowledge, skills, and attitudes" which can be learned using new technologies of microteaching, computer-assisted instruction, simulation and gaming, and the like. Students participate in developing their own goals, designing their programs, guiding their own instruction. The program has a research component to determine what techniques work and a continuous in-service education program for faculty.
Finally, it requires the integration of various essential tasks or competencies of dietetics.

The identification of universal dietetic competencies is basic to the development of CBDE. Each competency-based educational program is the result of a struggle to formulate a set of competencies, a task approached with mixed feelings of confidence and fear. Inevitably, when dietetic competencies are formulated, the curriculum developer asks himself: Are these the right ones? Have we used the right approach? Are we wasting time? Wouldn’t it be better to wait for the profession to formulate the competencies?

This is no time for fear. Consortia must be formed in order to pool competencies from various programs which will have to be reacted to by “experts” using consensus techniques. From this activity a national set of competencies should emerge for the dietetic profession.

As educators become involved in the competency-based education movement, they discover a need for a conceptual frame of reference for dietetics. It becomes apparent to them that respected disciplines such as medicine, law, and history, have one thing in common: a defined and unique theoretical body of knowledge that can be taught and learned. In a practice discipline such as dietetics, this theoretical body of knowledge has been applied only by the practitioners.

The development of a conceptual frame of reference is essential if dietetics is to become a respected discipline, but also for several other reasons. Within the field, too many facts are being accumulated for teaching and learning in formal programs. To provide efficient and economical organization of this knowledge, a framework is needed. Dietetic educators are being challenged to identify and select relevant concepts that can be developed with students—concepts that require a focus, a framework of essentials central to the field of dietetic practice. Educators also will continue to struggle with the differentiation of the horizontal and vertical levels of dietetic practice on the basis of levels of education until they can begin to communicate with each other from a conceptual frame of reference.
A framework suggests that the essential characteristics of dietetics are those functions that have persisted in spite of environmental changes during the past sixty years. To substantiate the framework it will be necessary to ask questions: What are some of the educational and social changes in the United States that have brought about changes in dietetics? What basic elements have endured throughout these changes in dietetics? What is the scope of the practice of dietetics and in what kinds of settings do dietitians perform their functions? What are the dimensions of practice that have given dietetics a unifying focus over time?

Ultimately, answers to these questions should result in a theoretical base for dietetics, making it possible for dietitians to judge the effectiveness of their practice and to make intelligent judgments as to what elements of that practice should be preserved. Dietitians who verbalize an antitheoretical bias by saying of students, “They know theory but can’t practice,” would discover that theories are implicit in their practice if they can be identified, tested, brought to a conscious level of awareness, and utilized by professional dietitians. Here lies the difference between professional and technical dietetics.

Concomitant with the four-year coordinated program, another educational innovation is occurring in dietetics. Two-year dietetic technician programs are being established in junior colleges. Currently there are thirty approved programs. Graduates of these programs are eligible to become associate members of ADA.

The technician movement has not progressed as rapidly as the coordinated movement for several reasons. The role of the technician in relation to the registered dietitian is unclear to many practicing dietitians, a confusion that has led to an uneven demand for technicians throughout the country.

Nutritional care technicians work under the supervision of registered dietitians in a variety of settings. When roles have been delineated in these settings, technicians are considered a great asset and are in demand. For example, food service
technicians are being employed by small hospitals, nursing homes, and extended care facilities. Consultant dietitians are retrained to supervise work of the technicians.

The growth of technician programs will probably accelerate in the next five years. More technicians will be retained as dietitians become more comfortable in their working relations with them and as hospitals discover that graduates of two-year programs can free their registered dietitians to render higher levels of nutritional care to the patients.

As a result of the coordinated movement, the dietetic profession is directly involved in baccalaureate education for the first time. Approval teams from the ADA are conversing with presidents, deans, department heads, and faculty members of colleges and universities, as well as with the hospital, food service, and community agency administrators and staff they traditionally interviewed. Academic freedom, higher education policies and procedures, and the relationship of the professional component of the dietetics program to the general education program are considered by those formulating Essentials for the coordinated undergraduate programs and planning workshops for site evaluators.

Responding to an increased need for outside forces to examine its approval process, the ADA applied successfully for accreditation status to the United States Commissioner of Education and the Council on Post-Secondary Accreditation. This keeps the profession accountable to the public, because the outside accrediting agencies act in the public interest.

As an accrediting agency, ADA needed to separate membership from registration. Members voted in April 1976 to bring about this separation, which necessitated an entire new structure within the association. The Commission on Evaluation of Dietetic Education is responsible for conducting site accreditation visits, monitoring annual reports, and moving towards self-assessment of programs.

A separate body, the Education Standards Review Committee of the Council on Educational Preparation, is responsible for
the establishment of Essentials for all educational programs, which will be reviewed every five years. In keeping with procedures being established by other accrediting agencies, an appeals board has been established to review questionable decisions.

Dietetic traineeships were established in 1973 to help meet a shortage of internships. (These traineeships will be phased out in 1980.) Following graduation from baccalaureate programs, students complete a minimum of twelve and no more than twenty-four months of approved training in acute and nonacute health care facilities providing qualifying experiences under registered dietitians. Completion of an approved traineeship qualifies them to become ADA members and to take the registration examination.

The traineeship program is viewed positively by dietitians across the country who are dealing with objectives, learning experiences, and evaluation devices for their trainees. There are currently 378 programs with 590 trainees enrolled. Groups of dietitians within states have met to learn how to write objectives, to discuss what educational possibilities they have in their own areas for trainees, and to provide screening of programs. An increasing number of dietitians are engaged in the educative process as a result of their involvement in the traineeship programs. In several instances they have developed internships in their own hospitals or have been involved in coordinated undergraduate programs.

Other dietitians view the traineeship program with skepticism, questioning the quality of the programs and the approval process. Many are concerned about the high number of dietitians, with or without clinical experience, entering the field. Colleges and universities are free to admit as many students as they wish and it is virtually impossible to limit the number of students in baccalaureate programs. This potential surplus raises these questions: What can be done to expand the role of the dietitian? What new positions can be created for dietitians?
The undergraduate revolution in dietetic education and a shortage of internships are having repercussions in graduate education. Some highly qualified dietetics graduates, unable to obtain internships, are choosing to enter graduate school and complete a master's degree. In order to become ADA members and to take the registration examination they must complete the master's and have six months of full-time experience in dietetics or one year of a graduate assistantship related to dietetics. The range of experiences is so wide that some dietitians are performing at a clinical level with an excellent knowledge base but without sufficient clinical background. These same individuals are unable to teach in coordinated undergraduate programs or dietetic technical programs because they lack the clinical experience to be effective teachers.

Master's programs are being established for the new breed of clinical instructors who will function in coordinated programs and technician programs. The goal is a strong academic background in nutrition, management, or community nutrition, coupled with training in education. To function in the clinical teaching practicums, which are an integral part of the program, graduate students must have clinical experience prior to entering the program.

Administrative master's and doctoral programs will be needed to educate administrators for the coordinated and technician programs. With the movement of educators from the clinical to the higher education world it is necessary for them to have a background in dietetics, administration, allied health education, and higher education. Thus curriculum development, research methods, generation of grant funds, and budget management must be mastered by these administrators.

In addition to the expansion of teacher preparation and administrative higher education programs, substantial growth will have to take place in clinical nutrition specialty programs such as pediatrics, renal diseases, and geriatrics. The body of knowledge and level of practice in the specialty area demands that the practitioner acquire a master's degree. The specialty practitioner is increasingly being asked to develop nutritional care plans for total patient management, write diet prescrip-
tions, and participate on the health care team by contributing to it a special knowledge of biochemistry, physiology, nutrition, and drug interaction with nutrients. The future will bring an increased number of coordinated master's programs. These will also provide the students with background in the behavioral sciences and education. Dietitians are being asked to communicate with a variety of people—some with a minimum of education, others with advanced degrees. They must have the capacity to produce dietetic educational materials for all levels.

A residency program to prepare faculty in medical dietetics, funded by the W. K. Kellogg Foundation, was established at Ohio State University to alleviate some of the problems experienced by coordinated programs in locating teachers with the proper academic credentials (Ph.D. or master's degree) and clinical experience. The residency program varies in length from three to twelve months, affording the residents an opportunity to acquire clinical or administrative expertise. It is a flexible program.

Dietitians are committed to improving human nutrition, advancing the science of nutrition, and educating the public in nutrition and other related areas. Accountability is currently a critical word in dietetic education. The inherent value of the process is no longer accepted as a basic premise. Educators, boards of trustees, and certifying boards alike are examining the education process and asking, "What does it produce?" Educators are struggling to identify the competencies of the entry-level dietitian and technician so that a curriculum can be constructed to assure the attaining of the competencies.

The changes at the undergraduate level are causing changes at the graduate level where many new programs are emerging in dietetic teacher preparation, administration, and clinical nutrition.

If the ADA's Study Commission on Dietetics were to repeat its 1972 inquiries, the findings would probably suggest that the professional education of dietitians has come a long way in a short time.
Notes


SOCIAL WORK PRACTICE IN THE HEALTH SETTING

Dorothy A. Miller & Constance P. Wilson

The practice of social work is an inextricable part of health care, since physical well-being and social environment are equally important in determining the quality of life. A comprehensive concept of health needs was given little recognition until recently. Instead, emphasis was placed on one aspect or another according to the particular interests of the most powerful medical or health group of the time, the state of relevant knowledge (biology, psychology, physiology, the social sciences), and the existing philosophical, economic, and political climate.

Man's spiritual or psychosocial state cannot be seen or described in the same concrete way as his physical nature. Despite Freud and others, the nonphysical elements are still clothed in mystery. Yet the health care disciplines concerned with this aspect of man are rewarded with inferior professional and economic status. Moreover, the growing body of knowledge about the impact of the social environment on man's physical and emotional condition wins reluctant acceptance.

A diseased or disabled person cannot benefit fully from his environment if his physical problems go untreated. On the other hand, what are the consequences for a child born into an environment of poor housing, sanitation, and nutrition, where these conditions are sometimes viewed as the just consequences of "lazy" or "sinful" parents? What of the failure-to-thrive baby who is treated and cured but then returned to a home lacking the resources for continued health maintenance because of ignorance, poverty, or lack of will on the part of
the parents? What of the sick mother whose hospital treatment cannot be completed because she returns home against medical advice to care for her children, whose care neither family nor community is equipped to handle? Or the father whose disability results in loss of his job and self-image, setting in motion a circular pattern of ill health, inability to provide for his family's economic security, emotional trauma, and, finally, dependency on society?

Understanding the interdependency of the professions interested in the various problems of the human being and what each has to contribute towards man's total well-being is crucial.

THE MANY ROLES OF SOCIAL WORKERS

The profession of social work has historically focused on the transaction between man and his social environment. But even though social workers are the primary providers of services dealing with the social-emotional needs of individuals and families, they have long recognized the health factor involved in these needs. In the health field itself, many social workers are employed in hospitals and outpatient clinics. They are also found in local health departments, the offices of private physicians, state and local health planning agencies, and state agencies which deliver health and welfare services.¹

Social work responsibilities are as many and varied as the agencies that employ social workers. For example:

1. In the hospital setting a major responsibility is to help the patient and his family stabilize their social and economic situation so that the maximum benefit can be received from medical care; also to help the patient deal with his own fears and adjust to his medical problem and the hospital regime.

2. To educate individuals and families to obtain and utilize health care. As an illustration, a social worker counsels parents of a handicapped child to identify available health resources that meet the child's particular needs and teach parents to help the child in ways that will reduce the impact of the handicap.

3. To influence the development of public policy, as when social workers assist migrant workers, for whom private medical care
is unavailable because of prohibitive cost, to find low-cost public health care. Social work activities in this area include research to identify the extent of need, designing of alternate remedies, and communicating this information to major decision makers. In this endeavor social workers collaborate with the specific population group in need, with concerned doctors and public health officials, and with others in the allied health field.

4. To take part, with other professionals, in efforts to prevent illness. Here the social worker might meet with mothers in public health centers to discuss nutrition, home management, and child care. The social worker identifies members of populations-at-risk who might best benefit from such activities and helps individuals to use new knowledge effectively.

5. As a member of a hospital-based health team, to provide expertise on social and psychological matters relating to patient and family care.

6. To play a professional role in recognizing and clarifying the attitudes of health team members themselves in difficult situations, such as with a dying patient, when not only the anguish of the patient and his family need understanding and support, but also the feelings of the health team members need to be resolved.²

The social worker looks on his broad role as helping those in trouble to become once again, or perhaps for the first time, fully contributing members of society. He also attempts to influence the allocation of needed resources to those who would otherwise not have the means to maintain life and health. Finally, he seeks to prevent the spread of social problems by helping to change institutions and environments that are harmful to substantial numbers of individuals.

Social Work in Medical Settings

Social work was introduced into the American medical setting in 1905, when Dr. Richard Cabot, on the staff of Massachusetts General Hospital, invited Ida Cannon to develop a department of social work. Dr. Cabot recognized that the increasing emphasis on specialization in medicine and on the scientific aspects of illness had resulted in a degree of neglect for the
psychological, social, economic, and cultural aspects of the patient's life. Although Dr. Cabot's words sound quaint today, his thoughts and ideas regarding the "whole" person are still pertinent: "It has become more and more clear, in the last quarter of a century, that we are dealing with people in masses so great that the individual is lost sight of. The individual becomes reduced to a type, a case, a specimen of a class." He also noted that fragmented patient care reduced the positive effects of treatment, that knowledge of home and environment was essential to full understanding of the patient's illness in order that nonmedical resources might be used to ensure recovery.

As a board member of the Boston Children's Society, Dr. Cabot saw at first hand the activity of social workers in a large city. He came to feel that social work goals—to help individuals reach their full potential as members of society in whatever situations they find themselves and to help modify or enhance the environment in order to accomplish such fulfillment—were needed in and adaptable to the medical setting. He was impressed with the way social workers got on with other professionals in the community and how they mobilized available resources to help those in need:

I watched the careful studies made by the paid agents of the society into the character, disposition, antecedents, and record of the child, his physical condition, his inheritance, his school standing. . . . If there were problems involving poverty on the part of the parents, other societies concerning themselves particularly with the problems of financial relief were asked to aid, in order that indirectly the help given to the parents might make itself felt in the better condition of the child. 4

After this experience Dr. Cabot replicated the use of the social worker in a medical setting—Massachusetts General Hospital. He recognized the traditionally autonomous way social workers practiced and incorporated this pattern into the medical setting. Thus the concept of prescription remained foreign to the social worker as a member of the health team, causing fundamental differences with most other health professionals,
who are accustomed to giving service only on doctors' orders. In many health settings social workers may initiate giving service. Fundamental differences may also arise between the social worker and the physician, who may or may not be interested in the emotional and behavioral problems of patients. Under these circumstances the physician may attempt to limit the area of the social worker to such concrete tasks as finding a place for the patient to go, transportation, and financial assistance. While these are important pragmatic considerations, for most patients medical problems also have complex social manifestations to which social workers are sensitive and with which they are competent to deal. The social worker is most effective when he is free to perform a full professional role, as Dr. Cabot suggested. Underutilization of the social worker will result in less-than-adequate health care.

Today's social worker, as a member of the health team, contributes an understanding of the patient's reaction to illness or handicap by gathering facts about the meaning and impact of illness for the individual and his family and about the social, psychological, economic, and cultural factors which will impede or enhance recovery. Significant factors in the environment—whether hospital, home, or community—which negate prompt recovery are also identified. The social work practitioner then assists in the mobilization of available resources (both the patient's inner strengths and outside systems) which can be brought to bear on the situation.

In accomplishing treatment goals, the social worker may work individually with one patient or, through a group process, with several patients. He may also work with the family to minimize the negative ramifications of the illness for the family and to help the family evolve as an additional therapeutic agent. In concert with these efforts, the social worker attempts to modify policies and procedures or to develop new resources in surrounding systems (hospital or community) which will aid the patient or patient groups. For example, a social worker in the pediatrics service of a large university hospital initiated development of a hospital policy on reporting child abuse to
proper authorities, antedating by ten years passage of state and federal legislation to achieve the same goals.

Another illustration of present practice is the following case history of the Sampson family:

Mr. Sampson, twenty-eight years old with two preschool children, is referred to a social worker by the hospital’s coronary care staff for his and his wife’s uncooperative and recalcitrant behavior. Mr. Sampson has suffered a severe coronary accident, and subsequent heart damage prevents his resuming his occupation as a skilled laborer in construction. Both the Sampsons refuse to accept the treatment regime and limitations on future activities on the grounds that the husband is “too young to be handicapped.” In addition, their financial resources are limited. Mr. Sampson has been passively uncooperative with the nursing staff, refusing medication and other treatment procedures. Mrs. Sampson, close to hysteria, alternately hurls verbal abuse at the nursing staff and cries pitifully for advice and support. She has continually reinforced Mr. Sampson’s uncooperative behavior by charging that “the hospital is making him sicker than he is.” She insists on bringing both children to the hospital, saying “we’re all alone and we need to be with him.”

Activities of the social worker in behalf of the patient and his family include:

1. Immediate interviews with Mr. and Mrs. Sampson, together and separately, to help them deal with the realities of the crisis by helping them to express anger, fear, and feelings of insecurity. Suggestions were given to Mrs. Sampson concerning behavior on her part that would contribute to her husband’s physical recovery.

2. Evaluation of the family’s resources, leading to provision of temporary day care for the children and emergency financial assistance to Mrs. Sampson for rent and food during this crisis period.

3. Participation with the coronary care team in both immediate hospital care and discharge planning, explaining to the patient and his family what resources would be available to them on discharge.
4. Referral to appropriate agencies on behalf of the patient and his family and working directly with these agencies. Especially important was a vocational rehabilitation counselor, who was able to provide occupational retraining for the patient. Ongoing financial resources were also provided.

On a broader scope, Bartlett outlines the range of social work activities in the health setting as follows: (1) administration of the social work program; (2) services to individuals, families, and groups; (3) planning services in agency programs and communities; (4) educational activities carried on within social work practices with social work students and students of other professions; (5) research activities, multidisciplinary or independent social work study and research, formal or informal; (6) consultation, in relation to any of the above activities, with other social workers and with other professions.

THE MANY TASKS OF SOCIAL WORKERS

When Dr. Cabot hired the first social worker at Massachusetts General, he commented that "social workers should keep up the high quality of individual casework and also do mass work on a large scale." That challenge continues to face the profession as it seeks to maintain a balance between stimulating planned social change on behalf of a client group and providing direct services to clients. Both are social tasks which need to be done, but questions are raised: Which task is the more urgent? For which task is there community sanction? In which task is the individual social worker not only best prepared but also most interested and skilled?

This is not unlike the dilemma described by Pellegrino and faced by the medical profession as it struggles unsuccessfully to apply its limited manpower resources to disease prevention and health maintenance systems which "are inevitably included in any list of medical responsibilities [but] with equal inevitability . . . are among the most neglected sections of health care."8

Historically, the medical profession's emphasis upon man
and his situation has varied, depending in part upon the knowledge base considered most relevant at the time. From the 1920s until late in the 1950s, for example, social workers were heavily influenced by the psychoanalytic movement. Their work with clients tended to focus upon psychological adaptation. In that era many social workers assumed the role of therapist in much the same manner as clinical psychologists and psychiatrists. Despite this influence, most social workers, because of their day-to-day contact with the economic and social realities of their clients, retained a concern for environmental factors. Primarily they were seeing poverty-stricken patients who were most often referred to hospital social service departments.

In an earlier movement social workers were active in bringing about improvements in slum housing, labor conditions, and specialized care for the mentally ill, and in living conditions for immigrants who arrived in this country in huge numbers to work and raise families. Among the leaders in this historic period of social work was Jane Addams, a pioneer in the settlement house movement, which educated the newcomers in homemaking, nutrition, and health care; provided educational and recreational activities; and organized neighborhood projects to better social conditions. Dorothea Dix, another pioneer in the early 1850s, traveled the nation pleading for better care of the mentally ill, whom she found in cellars, cages, and stables. In 1854 federal legislation was passed by both houses of Congress to assist states in financing the care of the insane, and, though the bill was vetoed by President Franklin Pierce, the seeds of the movement were thus planted and later bore fruit. In the 1930s and 1940s the presence in high positions in the Roosevelt administration of Harry L. Hopkins and Frances Perkins, both social workers, was a key to the enactment of such programs as Social Security.

The impact of these two historical thrusts, the psychoanalytic movement and social reform, is reflected in today's practice and in social work curricula. Knowledge of group process—change strategy and conflict resolution—in addition to skills in direct services to individuals, is part of the education of all social
workers. The various roles of the profession, especially in social change, are recognized and given community sanction.

**Development of the Profession**

Social work began to develop as a profession late in the nineteenth century, although the American social welfare system got started in early colonial times and was much influenced by the British model. Social welfare is used to describe the "full range of organized activities of voluntary and governmental agencies that seek to prevent, alleviate or contribute to the solution of recognized social problems, or to improve the well-being of individuals, groups and communities." These activities employ a wide range of professionals, such as physicians, nurses, lawyers, educators, engineers, ministers, social workers, and paraprofessional counterparts of each.

Although social work is only one of many professions within this system, social workers are the dominant group in many social welfare institutions. Unlike many of the other professions, social work also relates to such human service systems as public welfare, education, criminal justice, and family and children. Commonly identified with welfare assistance, social workers also perform many other functions. They practice in both voluntary and tax-supported agencies under autonomous private policy-making boards or under legislative fiat. Many are in private practice, which includes clinical, consultative, and educational activities.

Early in its professional development social work specializations appeared: family and child welfare, medical, psychiatric, and public school social work. Concurrently, those skilled in group settings, such as settlement and neighborhood houses and youth centers, and in community organization and social action projects were developing their own specializations and organizations. In the early 1940s social work educators were the first to provide a common generic base within the social work curricula. Practicing social workers followed somewhat slowly until, in 1955, the National Association of Social Work (NASW) was formed through an amalgamation of several
existing professional organizations related to specific fields of practice.

The present integrated approach to social work practice assumes common values, goals, knowledge, and skills for practice in particular service delivery systems with particular target groups. For example, the social worker in a health setting needs knowledge that is unique to this system; for example, he must understand the impact of illness upon human behavior; the roles and responsibilities of professionals working in the system; and the sanctions, procedures, and policies, both formal and informal, particular to the system. He will also need still more detailed knowledge when he joins a renal transplant team or the burn unit of a pediatrics service. This need for increasingly specialized knowledge is shared by all health team members.

The approach of the social work profession to manpower needs and resources has been curious. Historically, the required professional degree has been the Master of Social Work (MSW). Not until the early 1970s were holders of Bachelor of Social Work (BSW) degrees admitted to full membership in the NASW. Perhaps because social work was carried on largely by volunteers prior to the 1930s, the conviction that anyone with good intentions can do useful social work still prevails. Indeed, even today most positions in the United States called "social worker" are held by persons without any education in social work. The quality, value, and image of social service reflect this fact. In 1970 some 218,281 persons reported their occupation as social worker. In the same year only 51,450 were members of NASW, and not all of these held professional degrees, as many long-service practitioners without degrees were admitted in 1955.

A current move toward state licensure and certification of title should result in restricting the hiring of social workers to professionals with certified backgrounds. In 1975 the Council on Social Work Education began to accredit social work education programs at the bachelor's level, thus authenticating the BSW as the beginning professional degree. The development of the BSW as an addition to the long-sanctioned Master
of Social Work, and the acceleration of the development of the doctorate in social work, will not only provide the field with varying levels of competence but also should make service delivery more efficient, effective, and accountable. Recognition by the profession that some tasks assigned the MSW social worker could be effectively performed by persons with less than graduate education was found in a number of studies of bachelor-level social workers. In a Syracuse University study of selected Veterans Administration hospitals, both physicians and hospital administrators preferred the work of bachelor-degree social workers, as it more nearly approximated what they thought was needed for such instrumental tasks as arranging for eyeglasses, etc., as contrasted with the affective, emotional, helping tasks. Of course, this study raises many questions about roles for all professions in medical settings, though particularly for social workers. Who defines the role of the professional? Can social workers act as consumer advocates in a hospital which may not respond to market conditions? Can a number of professionals work together in health care without a hierarchical system resulting?

In 1971 the National Center for Health Statistics of the United States Department of Health, Education and Welfare estimated that nearly 25,000 social workers (29,800 including aides) were practicing in the health field, including almost 17,000 in psychiatric settings. The majority of social workers in psychiatric and medical settings hold the MSW degree. During the past ten years, however, standard-setting agencies, such as the Veterans Administration and university hospitals, have actively sought and hired BSW degree-holders to supplement their staffs.

Needed changes in health delivery systems will undoubtedly provide a number of consumer options which will move health care away from the hospital and the individual medical practitioner to varying models, most staffed by teams of health professionals. Social workers can make a substantive contribution as professional flexibility and education provide them with the interests and skills needed to improve services for consumers. Several graduate schools have begun to modify the
health content of their courses to reflect changes coming about through legislation in health care.

**Social Workers as Members of the Interdisciplinary Team**

Very early in the history of health care social workers were viewed as working in host agencies where the dominant decision makers were physicians. In recent decades, however, as knowledge has burgeoned, the physician alone has not been able to give complete health care, and other professionals including social workers have become more important in the decision making of the health team, with the role of team leader or coordinator shifting as the tasks of the team vary. Social workers have been educated to participate on interdisciplinary teams. Much has been written about teamwork, a concept akin to motherhood in its sanctity; but little attention has been given to study of the realistic problems of the team, such as authority relationships and the impact of members' varying perceptions of status and prestige on team operations, all of which are barriers to effective implementation of the concept. But there is little doubt in the minds of most health professionals that the consumer receives better care from a smoothly operating interdisciplinary team than from the single practitioner. The social work profession has always been concerned with the "whole person" interacting with the physical and social environment. This background and the social worker's knowledge and experience in group process should enable him to make a special contribution to the interdisciplinary and collaborative team process.

Comprehensive health care, which addresses itself to providing continuity of care for a target population and which incorporates preventative as well as restorative care, is consistent with the goals and practices of social work. Social workers have traditionally provided the connection between the hospital and the patient as he moved between home and hospital. Such a linkage requires a social worker who has expert knowledge of community supporting services and of
the development of resources to fill gaps in the available services. Much effort is given to the latter, particularly on behalf of special groups, such as asthmatic children in need of long hospitalization or outpatient care.

An interesting study by Cole and Lacefield in 1975 showed that social work and the allied health professions have common goals and values which provide a solid basis for cooperative working relationships. All the professions studied (medicine, dentistry, social work, nursing, and allied health) delineated the same areas of skill as important to their specific practices. Briefly summarized, these were described as:

1. **Professional skills.** The concern for achieving, exhibiting, and maintaining competence in a professional specialty.

2. **Verbal communication skills.** The ability to construct clear and unambiguous oral and written accounts or descriptions of events, ideas, situations, or procedures.

3. **Observing and inferring and distinguishing between the two.** The objective observation and description of people, events, and phenomena; the construction of reasonable inferences and hypotheses from such objectively gathered information; the ability to recognize an inference or an hypothesis as simply that and not a fact or hard observation—e.g., not confusing hypotheses or inferences with facts. Competence in this skill area ensures fair, rational, and impartial thought and evaluation.

4. **Using multiple theoretic and conceptual frameworks with which to approach problems.** The ability to interpret or explain a given situation or event in multiple ways with different assumptions, biases, and implications. Competence in this skill is essential to avoid becoming a “true believer” in any one theory, which results in dogmatically applying one set of concepts to all situations and becoming blind to other adaptive interpretations and possible solutions or problems.

5. **Interpersonal regard.** The ability to exhibit nurturing or supportive behavior toward others, especially the clients or people served by the professional. This involves being able to establish genuine esteem for others and to recognize their competence and worth in whatever degree these qualities are present. It also involves sincerely caring for one’s clients, listening to them, feeling empathy for their problems, and exhibiting nonpos-
sessive warmth or regard for them. These skills are essential to establishing a social climate supportive of the client's needs and the professional's instruction or help.

6. Value clarification. Recognition of what one's values, likes, and dislikes are—a skill requiring willingness continually to question and clarify one's own beliefs, values, biases, and prejudices concerning perceptions of and actions and interactions with others. It also involves being able clearly to express and affirm one's values. Being able to judge which theories, techniques, methods, or areas of service in one's profession agree or conflict with one's basic likes and dislikes is also part of this skill. Important here is the ability to recognize the existence of other values and value systems that are very different from one's own and not to feel threatened by them or blindly to reject them, but to understand them as being more or less appropriate from others' points of view. Competence in this skill area is basic to consistent and wise behavior in areas of personal integrity, ethics, and morals in professional and personal life.

7. Fluency and flexibility. Essentially, the ability to be open-minded, to approach problems, situations, events, and people from multiple perspectives. The individual with high competence in this area is able quickly to conceptualize many alternative approaches which are quite different from one another (flexibility). The skills of this area are related to good problem-solving behavior in technical, social, personal, or cooperative tasks.

As hypothesized, the social work professionals showed a slight preference for interactional skills, and the allied health professionals chose competence in the specialty area over interpersonal regard. But the variations were slight, indicating that both professions value highly technical, analytical, and affective skills—qualities forming a common base from which must come a superior health delivery team.

Education for Social Work

Social work education is built upon a foundation of values, knowledge, and skills acquired in both the classroom and the
field, including research. This format is followed in both undergraduate and graduate programs.

The curriculum study of the Council of Social Work Education (CSWE) recommends that all social work curricula contain a common core of knowledge including the following: (1) a scientific-philosophical component, charged with helping the student to acquire pertinent knowledge about and appropriate attitudes toward individuals, groups, and society and their interaction; (2) a methods component charged with educating the social worker to help individuals, groups, and communities to attain mutually established goals for enhancing the social functioning of people through institutional provision of services and resources.16

In general, the two-year Master of Social Work and four-year Bachelor of Social Work programs rest on four core knowledge areas:17

1. Human growth and behavior and the social environment, which includes foundation knowledge in the biological, social, cultural, environmental, and psychological factors that influence human actions. Upper-level courses, such as deviance and human sexuality, are built upon this same base.
2. The development of social services and the formulation, implementation, and impact of the decision-making process on social welfare policies and services. Knowledge of concepts in social change, organizational systems, conflict theories, historical analysis, and social reform are expanded on this base.
3. Social work practice: the basic theoretical foundation for "doing." The course deals with a wide variety of strategies of intervention and problem-solving processes, and prepares the student for the educational practicum and advanced practice courses.
4. Research: an integral part of all social work courses and the educational practicum. An integrating, problem-solving seminar is required, and specific research courses are part of the curriculum. Concentrations or specializations proceed from this base.

The student is expected to demonstrate the use of theoretical knowledge and professional skills, which include the develop-
ment of professional self-discipline and evidence of a clear philosophical base.

In addition to the core courses found in social work school bulletins, a sampling of specific course titles relating to the health field might include these: interactional skills for the health field, social work practice with family and children, social work practice in health and mental health, ecology of health and illness, social policy and medical care.

Unlike many other professions, social work education and practice place great emphasis on the incorporation of the value base by individual practitioners. Thus the teaching of values occurs in all curricula and articulates the philosophical base of social work. Two of the most salient values are defined in the curriculum study of the CSWE as follows: (1) each person has the right to self-fulfillment, deriving from his inherent capacity and thrust toward that goal; (2) a conception of the individual and society as interdependent leads to the view that, just as it is the responsibility of society to provide appropriate social resources, so it is the right of the individual to promote change in social resources which do not serve his need-meeting efforts. Concomitantly, it is the individual's obligation to satisfy his individual needs as much as possible in ways that contribute to the enrichment of society.\(^{18}\) The student is expected to incorporate this value base into his practice. He must convey these values in his professional relationships, whether with clients or with peers, and to understand their applicability in every life situation.

The social work student is also tested in the field through the practicum. Experiential education has a long history as a major teaching device in social work education. Several models of field learning are used in professional schools of social work in the United States, among them: the concurrent plan, in which the student spends approximately half the week in the classroom and the other half in an agency; the block plan, where large blocks of time are alternated between the classroom and the field; the modified block plan, which prepares the student in the classroom for one semester and then places him
in the field as a major activity but with certain classroom courses at the same time. Sometimes the supervisor employed by the agency may have an adjunct university appointment and be primarily responsible for the student's learning in the field.

The University of Kentucky has developed an innovative, faculty-based, teaching learning center (TLC) model which clusters a complex of agencies within similar delivery systems and enables students to experience several social work roles, relate to several delivery systems, participate in peer learning, and remain closely linked to the core campus faculty. Students and faculty meet in weekly seminars that focus on specific as well as generic knowledge and skills needed to function in the particular service delivery system to which the TLC is related. Syllabi with supporting bibliographies are developed for each center. Readings and other assignments, such as practice-related research, are assigned. The seven teaching learning centers are: Appalachia, community and urban, criminal justice, family and children's health, health, mental health, and state government. TLC students regularly have had several interdisciplinary learning experiences which have provided both academic and practice content. Specifically, the Kentucky January Program, sponsored by the University of Kentucky Medical Center, enables them to join with other students in the health professions in community projects. These are most frequently in rural Kentucky areas and involve five weeks of intensive off-campus study and service.

Another example of interdisciplinary learning for students was carried out in the University of Kentucky Medical Center outpatient medical service with students from five health-related professions—medicine, nursing, dietetics, pharmacy, and social work. The case method of discussion was used as a way of orienting students to the knowledge base and particular skill bank of the health professional. Student response to both projects has been enthusiastic.

Social work's major philosophical underpinning and its major historical thrusts are continually reflected in the curriculum and practice of particular eras. As Blackey states:
The profession’s education and its practice are inseparable. A historical perspective on the development of social work education and practice confirms two apparent, though not always appreciated, observations of this developmental process. The first of these is the relationship of social work to its surrounding cultural, social, economic and political environment at any one point in time. The second is the relationship of the development of social work to the discovery of knowledge and practice of social work, also at any point in time. These two insights are, of course, interrelated and interdependent.21

Revisions and refinement of the curricula continue as new knowledge about man and the environmental systems comes to light and makes an impact on social work goals. As knowledge develops in the health field, and as methods of health care delivery are affected through legislation and new technology, education and training in all health professions will change. The result should be more effective utilization of professions and disciplines to achieve the best possible health care in the United States.

Notes

10. Ibid., p. 1447.


17. For more information see the bulletins issued by the University of Kentucky, College of Social Professions, or bulletins of other social work schools.


The demand for quality, quantity, and sophistication in health care systems has grown phenomenally in the past two decades. This demand has created a need for more than 250 different types of health care professionals, many requiring special educational preparation. Projections for the next fifteen years indicate that health care will employ more personnel than any other industry in the United States. Both present and projected needs have drawn attention to the question, “Who will accept the responsibility for preparing the needed health care professionals?”

Traditionally, hospitals have borne this teaching burden. Recently, however, other institutions (such as community colleges, vocational schools, and four-year colleges and universities) have assumed major responsibility. Concern focuses on establishing and maintaining a high quality of educational preparation while increasing the numbers both of students and of institutions offering programs. Tangent to these concerns is the selection and preparation of instructors. Traditionally, these have come from the ranks of the practitioners, and their preparation has been based on the assumption that a person proficient in his professional competencies is equally qualified to direct the education of future professionals.

Over the past fifteen years there has been a gradual shift from this philosophy to a more formalized one, a change in
direction that began with the development of teacher preparation programs in medical centers and colleges of education. Many medical centers established programs without the necessary expertise to develop comprehensive, yet specialized, teacher preparation programs. Colleges of education, on the other hand, accepted health care personnel into existing elementary or secondary teacher programs without modifying course or curriculum offerings to meet the specialized needs of the health care instructor. While these approaches filled a temporary need, further development was indicated.

In 1971 the W. K. Kellogg Foundation funded seven regional centers in the United States and charged them with the responsibility for developing instructor preparation programs. These programs—located in San Francisco; Seattle; Chicago; Houston; Buffalo; Gainesville, Florida; and Lexington, Kentucky—were given a degree of flexibility in specific program format, but all were characterized by a linkage between colleges of education and colleges of allied health. While some of the centers emphasized doctoral-level allied health teacher programs, others concentrated on the development of administrators of educational programs.

From the trial-and-error work of the seven centers came a wealth of experience in the discipline of teacher preparation for the allied health professions, along with the realization that, since the field is characterized by a wide diversity of program types, the need also existed for diversity in the teaching programs.

Early steps in the evolution of health care instructor preparation, aimed at identifying the characteristics and needs of the instructors, included a statewide survey in Kentucky to analyze the job functions of health care personnel who also have significant teaching duties as part of their responsibilities.

The surveyors, who visited community colleges, other colleges and universities, vocational-technical schools, nursing homes, and hospitals, sought data on roles as teachers, time spent in teaching, number of students taught, teaching techniques used, and professional preparation.

Results indicated that there was no stereotype of the allied
Table 1

*Use of Various Teaching Methods and Environments*

<table>
<thead>
<tr>
<th>Teaching Modes</th>
<th>Average Use</th>
<th>Differences Based on Setting and Major Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminars</td>
<td>Once every few months</td>
<td>Colleges and universities use seminars biweekly; vocational-technical schools and nursing homes rarely use them.</td>
</tr>
<tr>
<td>Lectures</td>
<td>Almost weekly</td>
<td>Nursing homes use lectures infrequently, almost on a monthly basis. Teachers as a group use lectures almost twice a week.</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>Weekly</td>
<td>Nursing homes use demonstrations biweekly; vocational-technical schools use them daily. Teachers as a group use demonstrations almost twice a week.</td>
</tr>
<tr>
<td>Laboratory settings</td>
<td>Almost biweekly</td>
<td>Nursing homes rarely use laboratory settings; vocational-technical schools use them very often, twice a week.</td>
</tr>
<tr>
<td>Clinical settings</td>
<td>Weekly</td>
<td>No differences in local setting or major responsibility were found.</td>
</tr>
</tbody>
</table>

health educator. Generally speaking, in community colleges, other colleges and universities, and vocational-technical schools, educators spent well over half their time teaching, with the remaining hours divided among administration, supervision, and patient care. In hospitals, and especially in nursing homes, allied health educators tended to spend much less time in teaching, with more than two-thirds of their effort devoted to administration, supervision, and patient care. In all types of settings those educators whose major responsibility was teaching spent most of their time in this endeavor, but even these staff members devoted significant time to the areas of administration, supervision, and patient care.
Since teaching responsibilities vary widely, depending on institutional settings, the occupational types of programs taught, and the number of students taught, the skills needed to function within each unique role also vary widely (see Table 1).

Results of the survey data, confirmed by observations of existing programs, made it evident that teacher preparation programs must be based on day-to-day instructional skills with less emphasis on the theory and principles of education. While it was possible for a health care professional to obtain an advanced degree or credential in teaching without significantly improving his instructional skills, it was becoming increasingly evident that the diversified needs and interests of the health care educator could best be met by specialized programs that incorporate the following:

1. Credit for clinical course work done in previous professional programs. Barriers in the form of academic snobbishness toward admission requirements and transfer of clinical course credits which have discouraged prospective instructors from pursuing degree programs must be removed. Precedents do exist that allow credit transfer for health care skills courses and documented work experience.
2. Principles courses with value for the health care instructor, offered by colleges of education. Traditional offerings, such as educational psychology and statistics, often do not require modification for the health care professional.
3. New courses and the modification of existing education courses to meet the special needs of the health care instructor. New courses in curriculum design, evaluation techniques, and teaching skills can be designed with an emphasis on the needs of the health care fields. In content these courses are most effective when they speak specifically to the unique problems encountered daily by teachers in the clinical and laboratory environment. In the case of curriculum design, although the principles may be the same as those in traditional colleges of education, the specific task orientation of the health professions requires courses that provide more pragmatic information. This also applies to evaluation course work. The principles may be the same, but reliance on performance evaluation and the unique teaching environment in health care requires an evaluation content
with particular relevance to the health field. Methods or teaching-skills courses found in colleges of education provide little opportunity for the allied health individual to relate to topics and skills developed for use in the elementary and secondary classroom. Communication skills and teaching tactics most useful in the health field must also be emphasized. A more common, and perhaps more efficient, approach is to modify a single section of an existing course. This second tactic can sustain flexibility of course offerings and maintain competency criteria.

4. Practical teaching experience in a supervised internship. The benefits of practical experience for the prospective elementary/secondary teacher have been established. The prospective health care instructor also needs a teaching internship experience. The internship should be in an atmosphere of receptivity to teaching techniques that may be new to health care instructors who lack the benefits of an instructor preparation program.

5. Opportunities to improve and expand professional health care skills. It is undesirable for an individual to abandon totally his clinical skills during either the pursuit of teaching skills or during the teaching internship.

To meet these five elements, program flexibility is vital. A model for baccalaureate degree programs for those entering a clinical discipline with a certificate or associate degree is known as the “2 + 2” program (see Table 2). As the name indicates, maximum credit is given for the certificate or associate degree course work already completed. Advanced work on the baccalaureate degree then focuses on the completion of teacher preparation and health care courses.

Degree requirements can be tailored to meet the needs of the individual students. Cooperation between colleges of education and the respective health care professional colleges or departments will ensure that the prospective instructor achieves teaching competencies and health care skills, and has the opportunity to practice teaching in the internship.

In designing and implementing a master's level program, flexibility is also needed, since an increase in years of formal education does not assure a corresponding increase in sensitivity to effective teaching techniques. Mastery of these techniques,
Table 2

A Model 2 + 2 Baccalaureate Program

<table>
<thead>
<tr>
<th>Description</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>A. Associate degree program in student’s allied health specialty</td>
<td>60</td>
</tr>
<tr>
<td>B. Allied health core courses (interdisciplinary)</td>
<td>7</td>
</tr>
<tr>
<td>C. Discipline support (advanced clinical experience planned in accordance with student’s career goals)</td>
<td>12</td>
</tr>
<tr>
<td>D. Educator core</td>
<td></td>
</tr>
<tr>
<td>Clinical and laboratory teaching</td>
<td>4</td>
</tr>
<tr>
<td>Curriculum development in allied health</td>
<td>3</td>
</tr>
<tr>
<td>Allied health evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Electives in education</td>
<td>12</td>
</tr>
<tr>
<td>Teaching internship</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
</tr>
</tbody>
</table>

coupled with advanced clinical work, is also needed at the master’s and doctoral levels. Esoteric principles courses can be considered electives and thus allow more individualized instruction in the curriculum design. Table 3 outlines a model master’s degree program.

The establishment and implementation of flexible teacher preparation degree programs have a high priority for the improvement of instruction in the health care professions. While it is often desirable for health care instructors to seek advanced degrees, many are prevented from doing so by lack of time and unfavorable geographic location. Workshops, seminars, and conferences have attempted to meet the needs of both prospective and practicing instructors who either cannot or do not wish to pursue campus-based degree offerings.

Unfortunately, these in-service and continuing education offerings have often been too restrictive in scope. Like the degree programs, short-term offerings need to provide practical
### Table 3

**A Model Master of Science in Education Program**

<table>
<thead>
<tr>
<th>A. Education</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical and laboratory teaching</td>
<td>3</td>
</tr>
<tr>
<td>Preparation and utilization of media</td>
<td>3</td>
</tr>
<tr>
<td>Basic instructional design</td>
<td>3</td>
</tr>
<tr>
<td>Curriculum development in allied health</td>
<td>3</td>
</tr>
<tr>
<td>Allied health education</td>
<td>3</td>
</tr>
<tr>
<td>Teaching internship</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

| B. Allied health                                                            |                 |
| (Advanced basic science and/or advanced clinical skills)                     | 12             |

| C. Electives                                                                |                 |
| (Education, allied health, basic science, administration)                   | 6              |
|                                                                              |                 |
| **Total**                                                                   | **36**         |

Teaching skills and techniques that can be applied immediately in the teaching situation. The approach is one of reversing the traditional sequencing of workshop content. Instead of studying generic principles and theories, from which they create their own instructional application after the workshop has been completed, the participants practice teaching techniques during the workshop, leaving the underlying principles and theories for later study.

The most frequently requested workshop formats cover the "how to" skills such as conducting demonstrations, evaluating students, and presenting lectures. A typical outline for a workshop of this type begins with the identification of a teaching strategy that is useful in the health field, such as the demonstration. It would then provide a series of demonstrations, discussions, short lectures, and group activities leading up to the use of videotaped demonstrations presented by the participants.
Such an outline would include the following topics: (1) overview and planning of the demonstration as a technique; (2) analysis of function to be taught (task analysis); (3) preparation of objectives for the demonstration; (4) organization of the demonstration and discussion of the important elements of the demonstration, including instructional set, elements of a demonstration, and closure; (5) teacher tactics, including enthusiasm, student involvement through questioning, and reinforcement and feedback; (6) verbal and nonverbal teacher behaviors, including voice projection, eye contact, gestures, movement, facial expressions, and the use of silence; (7) microteaching experience; and (8) critique and discussion.

This pragmatic approach has resulted in a feeling by participants that they have acquired information and skills that can be applied directly to their own teaching situations. Among the most useful techniques that can be borrowed from the preparation of elementary and secondary teachers is the so-called "microteach." No one in the health field would presume to allow clinicians to leave their learning environments without some supervised practice of their skills. This philosophy can also be applied to the preparation of teachers. The prospective teachers are required to prepare and present a series of lessons. Through the use of videotape equipment they may then view themselves in action and evaluate their teacher tactics. A series of such microteaching experiences, under the supervision of experienced faculty, may advance teaching skills within the learning environment.

While the improvement of instruction in the health care professions has developed considerably over the past fifteen years, there is a need for still more effective programs. The goals of health care instructor preparation must go beyond merely credentialing teachers. The diversified needs of health care instructors dictate degree programs and workshops that stress practical teaching techniques within flexible formats. Experience has shown that the best approach is a cooperative effort between colleges of education and colleges of health care professions, an effort that will improve the education of health care professionals, and, ultimately, the quality of health care.
Notes


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