THE LEGACY OF MARY McMillan

1964

First Mary McMillan Lecture
by MILDRED O. ELSON
The Legacy of
Mary McMillan

In this first Mary McMillan lecture which is my great privilege and honor to give, it seems fitting to recall some highlights of Mary McMillan's life which reflect her life-long dedication to her profession and the warmth and vitality she gave to it. It also seems fitting to ask ourselves whether we have been worthy of her legacy to us, our profession and our Association, given in loving trust, and to examine with minds and hearts our responsibilities for their future.

Little did Miss McMillan realize as she began her studies in Liverpool, England, sixty-four years ago that she was destined to be the founder of physical therapy in the United States, her native land. Following the death of her mother, she had gone to England as a small child to live with her aunt. How she happened to become interested in physical culture and corrective exercises, as the course of study was then called, is not known. Possibly her decision was influenced by the motto of the Clan McMillan: "I learn to succor."

One
She herself said, “After two years in college in which I was working toward a Bachelor’s degree, I decided to break away, against my family’s wishes, to do that which I had wished to do more than anything else in the world for over a year.” After completing another two years of study she, characteristically, believed it was not enough and went to London for special courses in neuroanatomy, neurology, and psychology. She then accepted a position in a children’s hospital whose chief orthopedic surgeon was the great Sir Robert Jones. Later Sir Robert and the equally eminent Dr. Robert Lovett, of Boston, co-authored the treatise Orthopedic Surgery which was the “bible” of all physical therapists in the 1920’s and early 1930’s.

When England was facing the early days of World War I, Miss McMillan recalled, “There was a V.A.D. unit [volunteers] to which I belonged being formed to go overseas. . . . I was heartbroken that my physical examination prevented me from joining the group.” Fate or destiny had intervened, although she did not realize it, to return her to the United States of America for a new challenge and a greater service than she would have experienced in England.

In the United States during this same period orthopedic surgeons were training physical education graduates in their offices, particularly for work with crippled children. All schools of physical education taught massage and corrective exercises, and later some of the graduates specialized in these areas. The stage was set, therefore, for the transition of some 800 graduates in physical education to become Reconstruction Aides in World War I, and for 275 of them to become the charter members of the American Women’s Physical Therapeutic Association.

Soon after her return to the United States and her home near Boston, Miss McMillan accepted a position at Children’s Hospital in Portland, Maine. By this time the United States was already at war, and wounded American soldiers were being returned to this country for reconstructive surgery and aftercare. Even though Miss McMillan had not qualified physically for overseas duty with the British Army while in England, she had served with her unit in a base hospital near Liverpool. She knew from personal experience the type and the extent of injuries incurred in combat and the treatment required for rehabilitation. Therefore, when the clarion call for service in her native land came, she was ready. So much so that her bag was packed and off she went to Washington without waiting for travel orders.

Marguerite Sanderson, who had been giving corrective exercises in Dr. Joel Goldthwait’s office (and who later was to become the Director of the Boston School of Physical Education), was already in Washington in the Surgeon General’s office. Miss Sanderson, Miss McMillan said simply and matter of factly, took me to Walter Reed Hospital and that was the beginning of physical therapy in the U.S. Army. It was, of course, not that simple or easy.

Reconstruction

Aides

Picture a physical therapist in a large Army hospital with no room provided for work, with no knowledge of Army protocol and channels, and with no one who had knowledge or even wished to have knowledge about physical therapy. Miss McMillan was to say later with her engaging humor and twinkle in her eyes, “I tried to sell physical therapy and to sell myself . . . It was a hard job, they had little time for the likes of me.” But the mark of greatness which was to grow in succeeding years was emerging. Her bubbling good humor, innate perceptiveness, faith, and good manners masked a stubbornness which would carry her through trials in the years to come even greater than she encountered in selling herself at Walter Reed. Another great personal character trait which was to strengthen everything she did was her expressed sincere deep appreciation to each and every one who worked for or with her. It was never “me,” but always “we.”
Another clarion call came to her at Walter Reed—a telegram from the president of Reed College, Portland, Oregon, saying that 200 women were waiting for instruction. Release from duty at Walter Reed was not easy and appeared impossible. But Miss McMillan believed the need for additional Reconstruction Aides was so critical that she was prepared to resign. This was not necessary, for at that point at the urgent request of Dr. Frank Granger a leave of absence was granted. The next two years were busy ones in Portland, Oregon, where she taught two classes of Reconstruction Aides, and in Pittsburgh, in 1919, where she organized a newly established physical therapy department in an Army hospital. Miss McMillan never went overseas in person with any of the units, but much of her spirit went with “her girls,” those whom she had taught at Walter Reed Hospital and at Reed College.

In April 1919 she was promoted to the position of Chief Head Reconstruction Aide. In this capacity she made several trips to other Army hospitals inspecting physical therapy departments and conferring with hospital commanders concerning the programs. In October 1919 she was again promoted, with the title of Supervisor of Reconstruction Aides, and spent half of her duty time in the office of the Surgeon General of the Army to assist in the deactivation of physical therapy departments and in the discharge of the Aides. In 1920, believing that her mission was accomplished, she resigned her position with the Army.

How fortunate for us that Mary McMillan’s physical condition prevented her from being accepted for overseas duty with the British Army and that her great untapped resources and talents were to be ours! It was during her final year in the Army that the idea of an association was born. Many who had joined the Reconstruction Corps found the work so rewarding that they wished to continue in it. Many others, the majority in fact, were to return to teaching physical education or to leave the service for marriage.

It is easy to see in retrospect why Mary McMillan was the focal point around which a national organization of physical therapists was to emerge. She thought in terms of the whole country, foresaw its great civilian need for physical therapy, just as later she was to broaden that vision to encompass the world.

In those last months in Washington over 300 letters were sent to Reconstruction Aides, who were being discharged from the Army, over the signatures of Dr. Frank Granger, Marguerite Sanderson, and Mary McMillan to determine the interest in a proposed national association of Reconstruction Aides. Letters were also sent to orthopedic surgeons since it was they, at this period, who would be utilizing physical therapists in their offices and hospital clinics.

The Association Emerges

One response from Janet Merrill, who was to become the first Secretary of the Association, expressed deep interest in forming the new group and in raising the standards of physical therapy. Miss Merrill herself was an illustrious pioneer, having been trained in the office of Dr. Robert Lovett, and was the first physical therapist to serve in a poliomyelitis epidemic area, Vermont, which had experienced poliomyelitis since 1894. She, too, was a pioneer teacher, having trained personnel for emergency service in the catastrophic 1916 poliomyelitis epidemic in New York and environs and later as an instructor of Reconstruction Aides at Base Hospital No. 5 near Boston.

Miss Merrill and Miss McMillan were also in charge of two of the first post-World War I training courses at the Harvard Medical School Courses for Graduates, known as Course 441 and Course 442. Thus the future of the new association to which both contributed so much was assured through the education of recruits for civilian service. In a
letter to Miss Merrill, Mary McMillan said, "What we need is one unanimous effort in order to establish a high standard for our profession and enthusiasm that knows no bounds." She asked for any suggestion no matter how trivial. Meanwhile, there was a groundswell of interest in a national association among the Aides at Fort Sheridan, Illinois, San Francisco, Pittsburgh, and Portland. Also, Dr. Frank Granger, of Boston, and Dr. Harold Corbusier, of Plainfield, New Jersey, were actively urging that an association be formed. Therefore, when the prospectus of the new association, as developed by Miss McMillan based on the suggestions of many, was received, support for a national association was immediate and enthusiastic.

The first prospectus included the purposes:

1. To form a national organization.
2. To standardize and to place physical therapy on a scientific basis in civilian life.
3. To offer the medical profession efficiently trained women.
4. To raise standards in clinics and general hospitals.

Qualifications for membership included:

1. Graduation from a college or normal school with a major in physical education.
2. Training and experience in massage, therapeutic exercise, and some knowledge of electrotherapy and hydrotherapy.

All of this preliminary work was done prior to the historic organizational meeting at Keen’s Chop House in New York City on January 15, 1921. In a letter to a colleague in early January 1921, Miss McMillan wrote that she was spending a good part of each day and night on this "old" physical therapy association and if it ever got started she was looking for a letdown. To another, "I knew your poetic nature would resent a businesslike epistle . . . think, my dear, of the number of letters that my poor incompetent head has had to plan and then judge me harshly if you dare!" Also, she noted that she had been working alone since Miss Sanderson was busy with school work.

Even though "these many hours" were being spent on the physical therapy association, her enormous capacity for work and devotion to her profession was further evident by the writing, during this period, of the first textbook on physical therapy by an American. Her classic Massage and Therapeutic Exercise was published by W. B. Saunders Company in 1921. The third and last edition appeared in 1932.

The letdown which Miss McMillan anticipated did not materialize, for on March 24, 1921, a mail ballot revealed that she had been elected the first President of the American Women’s Physical Therapeutic Association. Her first message to the members of the Association as its President was published in the June 1921 issue of the P. T. Review. In this message, in addition to outlining the functions of the new Association, she said that no cause was dearer to her heart than the Association. This she was to repeat many times during her life. Significantly she also said, "now that we are a national association it is up to you and me to see to it that our foundation is laid on sound principles that will endure." In her Presidential Address at the first convention in 1922 she added another dimension to her first message saying, "The easy path in the lowland has nothing grand or new, but a toilsome ascent leads to a glorious view."

It would not be consistent with the character of Mary McMillan if great tribute was not paid and recognition given to her colleagues, the charter members, and the many physicians who gave wise counsel and encouragement to the birth of a new profession and its Association.

Later at one of the Annual Conferences of the American Physical Therapy Association Miss McMillan recalled these days and said, "Early members at the first convention did not join and say, 'What can I get out of it?'; they said, 'I intend to join to see what I can make of my profession and to see what I can do to create and maintain standards.'" How well
they succeeded is a matter of history. The dedication and leadership of the charter members were to guide the Association successfully through many crises.

Taking Physical Therapy To China

During the next ten years Miss McMillan was to practice her profession in Boston in Dr. Brackett’s office, continue her teaching, and participate in the growth of the Association as chairman and member of the Massachusetts Chapter. Strength and energy were being built up for her next challenge, China. In 1932 she went to China under the auspices of the China Medical Board of the Rockefeller Foundation to be in charge of the Department of Physical Therapy at Union Medical College in Peking. There, Miss McMillan, as the first international physical therapist, added another chapter of success and rewarding service, but the chapter was destined to end ten years later in sorrow.

Her great wisdom, perceptiveness, and gentleness as she embarked on this new venture are a lesson in international relationships to all. She studied the Chinese language and culture; she observed that China had existed centuries before she arrived in Peking and that it was her responsibility to adjust to China. She must wait, she told herself, until the Oriental became accustomed to the Occidental, and, in turn, she must become accustomed to them before she could expect to win their confidence. Miss McMillan came to love the Chinese and China very deeply, and they her. Once more she started as she did at Walter Reed—treating patients, teaching, and “selling physical therapy and herself to the staff of the hospital.” It was not easy, but as she so frequently said, “Who wants an easy job?” Students were selected for training in physical therapy from the nursing staff at the hospital, many of whom were sent to the United States for a basic course of study, for she was preparing her students and colleagues to assume responsibility for an enduring profession in China.

That a global war and later the Bamboo Curtain destroyed that dream was one of her greatest sorrows. She, by a twist of fate, became a personal victim of that war. She had been on home leave and returned to China just ten months prior to Pearl Harbor to release a physical therapist for war work. The warning signals were up, however, and she regretfully packed her household belongings, including all her Chinese treasures, for shipment home. Some were to arrive, others never left the dock in Shanghai. She with other Americans left for Shanghai but too late for passage home from that port. She later sailed from Hong Kong and arrived in Manila on December 2, 1941. No ship was scheduled to leave Manila for the United States for almost two weeks, so she went to the mountains for a brief rest, the last such comfort she was to know for many months. It was here she learned of Pearl Harbor and returned immediately to Manila to volunteer her services in the Army hospital.

The World War II Years

The incredible and harrowing events of the next years have been told with both humor and anguish by Miss McMillan. Those privileged to hear her in 1944 at the Annual Conference in New York, soon after her repatriation, will never forget that night. She who had endured so much, still pain-racked from the effects of beriberi and peripheral neuritis, described the events of those long months as a prisoner of war with a voice not quite strong but still with a bell in it, and an occasional chuckle in recalling how she had outwitted her captors on occasion. Her unquenchable spirit, deep religious faith with its accompanying inner strengths shone...
through her every word. She did not cry, her listeners did, almost with a shame that they had done so little and she so much. That night she was awarded Honorary Membership in the Association, the first to be given to a physical therapist.

Two years later, at the first postwar Annual Conference [Blue Ridge] in 1946 at Black Mountain, North Carolina, when the Association was celebrating its Silver Anniversary, Miss McMillan spoke to the members on “Physical Therapy from the Embryo on Three Continents.” This was reprinted in the Physical Therapy Review in February 1960, which was dedicated to her memory. Again the magic of her personality and the depth of her character shone like the guiding light it had been on three continents. In the two years since her return from prison camp her health and her bounce had returned. These years had not been idle ones, for the plight of her Chinese friends and colleagues was of greater concern to her than her own well-being. She held weekly teas in her apartment in Boston, which was furnished with some of the Chinese treasures from her Chinese home. Guests at the teas contributed “silver” to buy vitamins for her former colleagues and dear friends. Not to be outdone, the APTA members at the 1946 Annual Conference spontaneously took a silver collection for their first President’s life-saving project.

The Black Mountain Conference was a happy one. Many of the charter members were present, and it provided an opportunity for happy reminiscing. Also present were many uniformed members of the Physical Therapy Corps of World War II. One of these, a student in the first course given at Reed College and an assistant instructor in the second, was Col. Emma Vogel, Director of Physical Therapists in the Army, and later to be named Chief, Women’s Medical Specialist Corps until her retirement. Colonel Vogel at the time of Miss McMillan’s death spoke of her warmly as the “Mother” of physical therapy and attributed whatever success she may have had in the Army Physical Therapy Program to the inspiration of Miss McMillan. Another poignant reunion was with Lt. B. Kuehlthau, now Major Gillet (Ret.), a fellow prisoner of war at Santa Tomas, who, too, felt and expressed the inspiration of Miss McMillan during this tragic period.

A Prisoner
Of War

Those long months of incredible hardships, which, now, two years later, she could describe with humor were made bearable because there were others who needed her help. And help she gave them. Mrs. Martha Hill, a fellow prisoner and former anesthetist at Sternberg Army Hospital in Manila, in a personal communication recalls those months at Santa Tomas:

Molly was a rock in a weary land and, with that humorous sparkle in her eye and good common sense, was usually able to pour a little oil on the troubled waters. Everyone liked and respected her. She was an example to all of us. Nothing upset her, not even the interminable waiting in long lines for everything: to get into the bathroom early in the morning, later to take a shower with two others (to conserve water), to get food, and so on. Her keen mind found some word of jest or witticism that relieved the tension at just the right moment. Molly read her Bible every morning before she got up; she said the day always seemed to go better for her when she started it that way. The Psalms were special favorites of hers.

A science building was taken over for a camp hospital. Molly set up shop in a small room next to the space reserved for the daily clinic. Here with her knowledge and her clever hands she performed miracles with hot water, a few pails, basins, and bath towels. As her fame spread, she became swamped and asked me to help. Robert Slathe, a bright high school boy, trained in first aid and was her right-hand man. It was a privilege to work with Molly. We had fun along with our work, and people from the clinic would stick their heads in to see what we were laughing at. Aching backs and arthritis from sleeping on cold cement, pulled muscles, painful feet, infected
bedbug bites and rashes—all manner of aches and pains were brought in. Every day people went away feeling better after a half hour with Molly.

All kinds of people came—English seamen and officers from the ships blown up under them in Manila Bay, socialites, missionaries, and prostitutes. We soaked and massaged one woman’s feet and legs who later became famous for having “contracted leprosy in camp.” As she had lived in Guam as a child, she undoubtedly had been infected there, and the poor food and living conditions in camp had allowed it to develop.

Miss McMillan said among other words of wisdom that day at Black Mountain, “A physical therapist must never let her patients go without hope, and I don’t mean false hope. Hope helps to chase away fears. . . . A physical therapist must be healthy in mind, in body cheerful, for these things are infectious.” She urged that physical therapists keep up with the latest in the profession to be able to be of greatest service. She concluded by saying, “Of course, it isn’t always easy. It’s the hard knocks that bring out the best timber in us. Who wants a soft job anyway?” Not she, and she hoped not us.

A Tribute

At the 1949 Annual Conference in Boston, once again tribute was paid to Mary McMillan. She, as always, graciously acknowledged the honor and in turn paid tribute to all the many members whom she said had worked so devotedly to bring about the growth and development of the Association.

During the ensuing years until her death in 1959 Miss McMillan continued to be a source of strength and inspiration to the Association, its members, its officers, National Office staff, and students. She embraced happily the opportunity to speak to students when she visited various sections of the country, and their responses to her were immediate and warm. Her presence at National Conferences always added an extra sparkle. Her visits to the National Office when a committee was in session, or just to chat with the National Office staff, gave evidence of her continuing interest in projects and programs concerned with education for physical therapy or the utilization of physical therapists in services for people around the world.

Her sights were never narrow as her life shows so well. The organization of the World Confederation for Physical Therapy with its opportunity to foster the development of physical therapy in countries where it was so sorely needed, as in her beloved China, was a fulfillment to her of an unfinished mission. She was present at the organizational meeting in Denmark and gave a warm welcoming greeting at the Second Congress of the World Confederation for Physical Therapy in New York in 1956. She was already registered for the Third Congress in Paris in 1959 when her final illness prevented her attendance.

Her joy and enthusiasm in her profession was as great and glowing in 1959 as it was when she began her studies in Liverpool in 1900. Her legacy to us, the members of the American Physical Therapy Association, is a living, vital challenge. Would that we could have, even in smaller amounts, her compassion and dedication, her wisdom and courtesy, her personal dignity and sense of humor, coupled with her sensitivity to people and situations, her belief in the dignity and integrity of all people, and her vision to help us meet and solve perplexing problems with wisdom and understanding. With these attributes, the unity, purpose, and strength of our Association would never be threatened from within or without.

Were she here today she would say firmly and convincingly that those qualities are present in abundance, and that her trust in us is complete. She might add, we must be ever climbing the mountain and, no matter how steep the ascent, we must be prepared for hard knocks. For how else can we grow strong? She would remind us to listen to one another.
with minds and hearts and to be concerned for the needs of patients wherever they may be, here, in China, or anywhere in the world.

President John F. Kennedy once said, “It is our task in our time and in our generation to hand down undiminished to those who come after us what was handed down to us by those who went before. . . . To do this requires constant attention and vigilance, sustained vigor and imagination.” May we who have received the precious legacy of Mary McMillan, our profession and our Association, cherish and nurture it, that we in turn may hand it down, as glowing and vital as the spirit of our beloved founder, the immortal Molly McMillan.

Fourteen
COMPLEMENTARY FUNCTIONS AND RESPONSIBILITIES

in an Emerging Profession

Second Mary McMillan Lecture

CATHERINE A. WORTHINGHAM, Ph.D., D.Sc.
Presented at the Forty-second Annual Conference of the American Physical Therapy Association in Cleveland, Ohio, July 2, 1965.
COMPLEMENTARY FUNCTIONS AND RESPONSIBILITIES

in an Emerging Profession

I stand before you today with a sense of great obligation to the pioneer and leader in physical therapy, Mary McMillan, in whose honor this lecture series was established.

Mary McMillan, if she could be here, would be gravely concerned about a number of problems facing the members of this Association. I firmly believe she would state these problems clearly and make every effort to see that they were faced squarely, fairly, and to the best advantage of the field of physical therapy to which she was dedicated.

Therefore, to fulfill my obligation to Miss McMillan and to the Association which has given me the privilege of presenting this lecture, I should like to discuss with
you certain important complementary functions and responsibilities of an emerging profession.

I use the term "emerging profession" advisedly, for as much as we would like to think so, physical therapy is not yet completely recognized as a profession.

The sociologist, Bernard Barber, reminds us that there are a number of steps an occupation must take on its way to becoming a profession.

1. The leaders of an emerging profession may acknowledge the present and obvious inadequacies of their group, but they compare these inadequacies to ones that existed in the past among professions already established.

In the attempt to express and strengthen the community orientation of their group, the leaders take pains to construct and publish a code of ethics.

The leaders establish or try to strengthen a professional association. In an established profession such an association effectively carries on the several functions of self-control, socialization and education of the members, communications with the public, and the defense of professional interest against infringement by the public or other occupational groups.

Within their own occupational ranks, the leaders establish measures and titles of more or less professional behavior. . . They may also seek legal licensure from the state if it does not already exist.

The leaders will, of course, seek to establish or strengthen university professional schools. The flexibility of the American university system has permitted even marginal professions to get some kind of connection with some kind of university, thus holding open the door for any further possible development of professionalism.

Desiring prestige and support from the general public, the leaders will engage in a program of public information about the "professional" services it provides and the "professional" standards of community orientation it maintains.

And finally, the leaders of an emerging profession will have to engage in some conflict with elements both inside and outside their occupational group . . . in their efforts to establish a sound base for a profession. 1

We recognize the tasks listed as those which have confronted or are confronting the occupation of physical therapy.

Two very important issues having direct bearing upon the development of our profession are before the House of Delegates at the Forty-second Annual Conference. Depending upon the results of these deliberations in the months to come, the emergence of physical therapy as a profession can accelerate or decelerate.

One of these issues is the training of the nonprofessional assistant. The necessity of spreading the services of the relatively few qualified physical therapists to the ever-increasing load of patients, particularly in the aging and chronic disease categories, makes it imperative that this issue be faced quickly and in a manner which is in the best interests of the patient and our developing profession.

The other issue before our delegates is the compatibility of collective bargaining with standards of professional conduct. This problem is one in which the forces within and without our Association are readily recognized. No matter what decision our delegates make, the path ahead will form a maze from which it will be difficult to extricate a profession.

It is not my intention to take advantage of my position on this platform to speak for or against either issue, but
I would caution you to look, not only at the immediate effects of your action, but to the long-range goal of attaining the status of an accepted and unified profession. The delegates at this Conference, indeed, face a challenging responsibility.

IDENTITY
OF PHYSICAL THERAPY

A third problem which demands immediate concentrated attention is the maintenance of the identity of the physical therapy profession. If there is any doubt in your mind as to the need for this effort, I suggest that you make a personal survey in your own locality, asking these questions:

How often does "Physical Therapy" appear as the sign identifying the service department?
Are physical therapy notes a part of the patient’s permanent record?
Is the physical therapy service a listed, administrative unit of the hospital or other facility?
Is physical therapy called “physical medicine,” which it is not? Physical medicine is a medical specialty.
Is “physical therapy” lost under the title of “rehabilitation”? It would be just as appropriate to lose “surgery” or “dietetics” under this title. After all, rehabilitation is a process to which all the health professions contribute. It is not an entity in itself.

There are other aspects of identity which also require attention. For example, is physical therapy understood and respected by the medical and other health related fields?

As importantly, do we know, understand, and respect these other professions? Substantial bridges remain to be built to strengthen our identity and relationships in these areas.

The final point regarding identity which I would like to mention is concern for legislation. Is physical therapy receiving adequate attention in the health legislation of this country? Physical therapy is essential in the care of many of the kinds of patients about whom there is growing public concern.

The importance of physical therapy is not automatically recognized. Our profession must be in evidence at the right place and time, supported with facts and figures concerning physical therapy education, patient care, and the facilities needed for both.

THE TOWN-GOWN RELATIONSHIP

These and many other problems to which I might direct your attention face the profession today. However, none is more pressing at this moment than the teacher-practitioner relationship which has, for some time, been showing signs of strain.

Medicine calls this phenomenon the “town-gown” problem, in this case derived from the increase in full-time medical educators with the virtual elimination of voluntary or part-time physicians from the educational program. Also involved is the increase in outpatient care in the medical teaching centers with its effect on medical economics.

In physical therapy the “town-gown” problem differs, but is nonetheless serious. One senses an increasing variance between the teachers in the university and the prac-
tioners in the clinical facilities. One factor which contributes to this lack of solidarity is the misunderstanding of the vital but differing roles of each.

The University

The function of the university in the education of the health professions has been discussed by many educators, but the most thoughtful summary to come to my attention is contained in the little book by Lester Evans entitled *The Crisis in Medical Education*. The author points to the usual concept of the university as the home of the intellect, the storehouse of knowledge, and the location of fundamental research which opens up new avenues of learning and doing. But he emphasizes that anticipating the future is the specific charge of the university. He describes the difference between the practicing profession and the university in this way:

The former is charged by society, through the licensing process, to render the best possible services with the knowledge which is known today, a fact which focuses attention on things as they are now, while the university moves from this known level to explore the uncertainties which cloud the future... it is preparing students for the medicine society will have devised in the year 2000.2

Growth of Physical Therapy

We must not forget that physical therapy has come rapidly through a sequence of patterns of education. There are still some of our members who traveled the apprentice path. Your speaker is one of them. There are many who entered the field through hospital courses. A steadily increasing number are graduates of programs established in colleges or universities. Under these circumstances, is it so surprising that a basis exists for apprehension and caution between practitioners and teachers?

As long as our professional Association was small enough to make communication relatively easy and to hold its Annual Conference in an informal setting, the teacher and the practitioner had reasonably adequate opportunity for exchanging ideas and developing friendships and understandings.

Now the Association has grown to the point where attendance at the Annual Conference, current and projected, limits the localities in which it can be held to some eight cities with extensive hotel and conference facilities. As a result, larger and larger numbers of physical therapists have the experience of national conference infrequently, if at all. At our conferences, old friends greet each other warmly but acquaintances part at the auditorium door or the hotel elevator. Under these circumstances, new friendships develop with difficulty.

Communication a Problem

Where there is lack of communication, misunderstanding thrives. In the national Association and the chapter, one hears practitioners saying that the school people are impractical, yet they want to run everything—be the officers, chair the committees, decide the policies, and control the program.

On the other hand, the teachers say practitioners are
slow to accept responsibility, that they are more inclined to show interest in personal convenience and economic status than in other factors important to the profession. Who is right? Is it possible there is justification for both viewpoints?

The immediate daily objectives and tasks of the teacher and the practitioner are so different that it is difficult to obtain a concerted focus on long-range goals for the profession. Yet each must understand and complement the other if physical therapy is to emerge as a profession.

RESPONSIBILITIES

The Academic Instructor

Over the past fifteen years, the great increase in university programs for physical therapy education has brought with it a differentiation in the role of the teacher, both academic and clinical, to an extent which did not exist in the earlier hospital-oriented educational programs in this country. Today the physical therapist who enters academic teaching in the university and accepts as a part of his responsibility contribution to further knowledge through research, faces a different challenge from the physical therapist who becomes a practitioner. The teacher must dedicate himself to new horizons for our profession, our students, and our schools. His primary responsibility is to the community rather than to individuals.

To hold his own in the university environment, the academic teacher must continue to prepare himself in depth for his teaching responsibilities. This has come to mean at least the Master's degree level of education. If the emerging profession is to achieve other than courtesy acceptance from the university, for the major portion of the academic teaching staff, it will soon mean education at the doctoral level.

The Clinical Instructor

Next let us consider the extremely difficult situation of the practitioner of physical therapy who is a clinical teacher associated with a university professional school. His primary responsibility is to patient care, and to the facility from which he receives all, or the greater part, of his financial remuneration. The service department of which he is a member, in spite of the teaching responsibility which it carries, is usually expected to make expenses. It may even be required to show a profit. The clinical teacher is expected to plan and supervise programs for students, but he is rarely given the time to do so in a way which university standards should demand. If he recognizes the need for further depth of preparation for his clinical and supervisory responsibilities, he is seldom encouraged or, indeed, given sufficient opportunity for this development. His loyalties are divided between education and practice. Because of the nature of the pressures under which he must work and the frustrations he faces daily, he is forced to be more practitioner than teacher.
The Practitioner

The clinical physical therapist feels a primary responsibility to his patients and their families, and so he should. Because he is often isolated from those centers in which research and education in his field are taking place, experience becomes his teacher, but it is hard for him to judge the quality of that experience. The kinds of patients he sees are changing and so are their needs. If he seeks additional preparation, he wants to be taught a new technique or how to use a new device. He tends to mistrust those things for which he does not see immediate use.

As we consider our three physical therapists' objectives, we can see that for them depth and breadth of knowledge are virtually incompatible. The academic and clinical teachers, if they are to prepare themselves to contribute to the rapidly developing profession in a university setting, must acquire depth of preparation in a limited field. The practitioner, for the most part, is compelled by the nature and immediate daily pressures of his work to be a generalist.

However, today's practitioner cannot afford to be isolated from the university and its clinical education centers for long, for the development of physical therapy is too rapid.

A CHANGING ENVIRONMENT

Physical therapists, as an organized group in this country, have less than a half century of history behind them. During this time the Association has grown from a membership, as reported in the professional journal, of 274 in 1921 to a membership (other than student and honorary) of 10,410 in 1965. It took twenty years to reach a membership of just over 1,000. Therefore, almost 90 per cent of the growth of this Association has taken place in the last twenty-five years.

In this same half century, man has gone from the steel age, to the air age, to the nuclear age, to the space age. Each has had an effect on the knowledge and practice of the health professions.

This period, also, has seen psychology and sociology emerging as scientific disciplines. Their importance to the education and practice of those of us who carry responsibility for patient care is increasingly recognized.

The development of physical therapy knowledge and practice from World War I to World War II was so great that it is difficult to document. Since World War II, change has been even more marked. In the years ahead, with the already discernible patterns of disease, disability, and patient care, the possibilities are staggering to contemplate.

Projections of population growth show that in the United States a population of 212 million is expected by 1970, and 240 million by 1980. Between the years 2000 and 2010, the population will pass 400 million. Quite a few of you will be around to see that event. I hope that you will be able to bear up under the work load which will be entailed.

I say this with justification as trends in the development of new schools and in enrollment in the health professions do not support an expectation that new physical therapists will maintain even the present physical therapist-to-population ratio. Therefore, you will be obliged to meet the needs of these great numbers of people with proportionately fewer personnel.
The School in a Changing Environment

From this brief review, it is apparent that rapid change in education and practice is unavoidable. We have seen that the special charge of the university is to anticipate the future. Therefore, our university professional schools and associated clinical teaching centers must take the responsibility for anticipating changing needs in patient care. They will do this through teaching and research, whether in the basic and medical sciences, the social sciences, the techniques of patient care, or in changing patterns of patient care.

The university as an institution has the components for the continuing growth of physical therapy as a profession. But the attitude of the particular university toward this field, and the concept of physical therapy education held by its physical therapy school, will determine whether they are utilized. Unless both see their obligation as greater than the initial preparation of physical therapists for practice, the profession will not be fully served.

Physical therapists, both teachers and practitioners, have need for further education, whether in continuous residence, short courses, or by means not yet foreseen or devised.

INDIVIDUAL RESPONSIBILITY

Can physical therapists meet the challenge of the future? Will teachers and practitioners complement each other in building our profession? How do each of you answer these next questions?

Do you read the Journal of the American Physical Therapy Association carefully and regularly?

Do you habitually read at least one other related professional journal?

Have you ever returned to a physical therapy school for short-term or long-term study?

Do you periodically attend institutes, take short courses, or engage in longer periods of study in physical therapy, a related field, or in some field of general education?

There is widespread acceptance of a degree, certification, or licensure in physical therapy as evidence of competence. This is good evidence, but we must remember that this competence carries no guarantee that it will not become outworn. It provides no assurance that the physical therapist will retain command of his subject and keep his skills at a high level indefinitely. In fact, the difficulty which both the teacher and the practitioner face in keeping up with new knowledge and techniques may be a contributing factor to “town-gown” misunderstandings.

The truth is that only in the university, with its associated clinical teaching facilities, does the physical therapist stand a reasonable chance of keeping up-to-date. Even in this favorable situation, he will have to be constantly on the alert and put time and effort into continuing study.

The rapidity with which scientific and medical knowledge is increasing in this country is phenomenal. Unfortunately, this same rate of progress is not noted in translating this knowledge into practice.
Nothing is so out of date as to think that education is something that takes place from kindergarten through college graduation. Now and in the future, the professional individual will be forced to seek additional education at many points in his career.

Employers, also, will have to give consideration to continuing education as a matter of policy. It is not too fantastic to think that leaves of absence with financial remuneration for professional meetings, institutes, short courses, and longer periods of intensive study will increasingly become a part of employee contracts, whether in the university or the clinical facility.

**COMPLEMENTARY FUNCTIONS NECESSARY**

The need for better understanding between the teacher and the practitioner was never more crucial. We cannot avoid all the pressures from within and without which tend to disrupt these relationships, but we can, through the use of intelligence and conscious effort, increase our stature as a profession.

Physical therapists in the university and in the clinical setting must present a united front, with full recognition of their complementary functions and responsibilities. The path between the university and the town must be traveled by both the practitioner and the teacher throughout their professional lives. When this path has become familiar and well-worn, and when the travelers accept their mutual responsibilities, aiding one another in their complementary functions—only then can we truly say physical therapy has emerged as a profession.

Fourteen

Fifteen

**REFERENCES**

A HARD LOOK

Third Mary McMillan Lecture
by RUBY DECKER
A HARD LOOK

A PROFESSIONAL GROUP in pursuit of excellence takes stock periodically, has an analytical look at past performance and present demands, and formulates plans for the future. If a group endures for any length of time, it is because a constant self-evaluation is carried on at an almost unconscious level. This method may suffice when the group is small, but as membership and responsibility increase and society in general becomes more complicated, the necessity to formalize the process and to document it becomes evident. Documentation affirms the philosophy of the profession, states present goals and objectives, anticipates future needs, and makes known the plans to meet them. The particular contribution of a profession is delineated and its responsibilities defined. The profession is revitalized and spurred to greater efforts. Society is given the opportunity to appreciate the role of the profession.

There is no more fitting time for physical therapy to take a hard look than now during the forty-ninth year of its recognition as a health service which was accorded by the U.S. Army in 1917.

It is my privilege and honor to present the third Mary McMillan lecture. I have been in this profession almost since its beginning, and after forty-seven years of partici-
pation in almost every capacity I welcome this opportunity to take an analytical look at the past, a critical look at the present, and to make a calculated flight into the future with you.

PHYSICAL THERAPY
DEVELOPMENTS

A sense of history provides understanding of a profession's accomplishments, its problems, and its frustrations. An objective appraisal of our background provides hindsight which will lead to enlightened foresight. Such an appraisal also deepens the understanding of our profession by its members.

Before World War I, physical therapy was practiced in the offices of a few orthopedic surgeons by young women who, for the most part, had graduated from schools of physical education. These orthopedists were concerned about the prevention and correction of deformities, about posture, and about provision of maximal restoration of function for their patients who had anterior poliomyelitis. These young women with their basic knowledge of anatomy, kinesiology, physiology, corrective gymnastics, general exercise, and teaching methods had an excellent background for this specialized aspect of physical restoration and prevention of deformities.

In 1917 the Women's Auxiliary Medical Aides Department was organized in the Surgeon General's Office for the purpose of rehabilitating wounded soldiers quickly and to the greatest extent possible. At first this new specialty was in the Division of Orthopaedics. It was soon transferred to the Reconstruction Division and its members were classified as Reconstruction Aides in Physiotherapy, or RA-PT. Marguerite Sanderson from Dr. Goldthwait's office in Boston was appointed Chief Aide and was responsible administratively to Lt. Col. Frank B. Granger in the Surgeon General's Office. In 1919 Miss Sanderson was sent to France as Chief Reconstruction Aide in the American Expeditionary Forces. Mary McMillan, who had been granted a leave of absence from Walter Reed Hospital to organize an emergency course for physical therapists at Reed College in Portland, Oregon, returned to Washington, D.C., to become Supervisor of Reconstruction Aides in Physiotherapy, Medical Department at Large, Surgeon General's Office, U.S. Army.

During World War I and for several years afterward, there was no question of the role of physical therapists in the physical reconstruction or, to use the new term, rehabilitation of patients disabled by disease, injury, or congenital defect. Physical therapy departments were under the direction of physical therapists who were responsible for the conduct of the departments. Authority was commensurate with responsibility.

Shortly after World War I a good deal of emphasis was put on machines by some physicians who fitted their offices with many types of mechanical devices. Patients exercised on some electrically powered apparatuses by merely hanging on, while other machines required work on the part of the patient. Many kinds of electrical stimulators were used to elicit muscular contractions. Tonsils and neoplasms were removed by long-wave diathermy using a technique known as "coagulation" or "fulguration." In many instances, on-the-job training was given to technicians who manned these machines.

Fortunately for the profession of physical therapy, there remained a hard corps of workers with appropriate academic background whose professional education had been obtained at institutions approved by the American...
Physical Therapy Association. These physical therapists continued to work with disabled persons in conjunction with the patient's personal physician. Please note the phrase: "in conjunction with." This was a co-operative program with mutual appreciation and respect for the contributions of each specialty. Upon referral by his physician, the patient's physical potential was evaluated by the physical therapist who then planned and executed the physical therapy. The patient was frequently checked by the physician who was supervising his welfare. Alterations in treatment were made after a two-way consultation on the part of the physical therapist and the physician.

The physicians who were particularly interested in the treatment of disease and injury by physical agents formally organized their own council shortly after World War I. In 1947 the American Medical Association officially recognized them as a specialty. A specialty board was formed which set the standards for residency training and administered board examinations for membership to qualified candidates.

When this council arbitrarily encompassed in its realm of activity the services rendered by several well-established professions, physical therapy was one of them. The workers in these specialty fields were dubbed as "technicians" since they were experts who were of service, but not a part of the medical specialty. This tag was undeserved in the first place and unfortunately has persisted in the minds of many in spite of vigorous efforts on the part of physical therapists to erase it. In far too many instances physical therapy has lost its identity when brought under the all-inclusive terms of rehabilitation or physical medicine. Occasionally in the literature, as a sort of afterthought, these terms are followed by the words "physical therapy" in parentheses: (physical therapy).

Since World War II there has been increased demand for physical therapy by our society which now is realizing the important contributions these services make in obtaining maximal functional performance in the shortest possible time following disability. The pattern of extending physical therapy is undergoing innovations to meet the needs and challenges of the changing pattern of living, the trend toward urbanization, modern means of transportation, and social welfare programs. As a result, many patients probably will not be able to go to a central unit for physical therapy; the service must be brought to them.

THE NONPROFESSIONAL ASSISTANT

The rapid addition of information being infused into the body of knowledge of our profession can only lead to specialization. It also leads to the realization that different levels of competency are needed to adequately serve the demands of society. This imposes an urgent need for action on our part. Official recognition by our professional Association of a two-year Associate of Arts degree in physical therapy to prepare men and women to give certain physical therapy procedures is upon us if we wish to set the criteria and standards for this level of education and service in physical therapy. This is a function of professional leadership.

This subject has extensive ramifications. It is not simply implementing a two-year post-high-school educational program. It involves professional recognition. Will there be a category of membership in the American Physical Therapy Association for this level of worker? Or shall we step aside and watch them organize their
own association? It may mean amending state licensing laws to include the supervision of these subprofessionals as an additional responsibility of licensed physical therapists. Will these workers be the prey of ambitious labor unions? What control will be effective to insure that these subprofessionals work under the supervision of professional physical therapists? Will it be legal control, or will institutional approval hinge upon it? Will members of other health professions employ only this level of worker and then attempt to legalize their action by saying that they (the other profession) are supervising the work? This could occur in nursing homes, rehabilitation centers, clinics, and hospitals. We can resolve these problems only by action through our professional Association which represents our united strength.

We should not overlook our obligation to the student who goes into an Associate of Arts program. We must make sure that it is not a terminal course. If the student wishes, and is able, he should be qualified to transfer his credits to an affiliating senior college or university and in two more years earn a baccalaureate degree in physical therapy. This means that the educational programs in junior and community colleges must meet the requirements of the baccalaureate programs.

Many in our profession are concerned about this problem and are studying it at national, chapter, and district levels. Every member should be giving this serious thought and action because physical therapists are not alone in their interest in this area. Although such programs have not yet been instituted in junior or community colleges, the idea is simmering. Several courses at an aide level are in progress, and many more in the paper stage are under the auspices of other professions that are also interested in the Associate of Arts programs.

This is an untenable situation. The education and supervision of physical therapy assistants and aides at all levels of competency are the responsibility of our profession. However, the opportunity to be assured of this may be lost if the profession delays positive action any longer. Physical therapy can lose by default—by shirking responsibility—its right to make its own decisions. To endure in a democratic society a profession must be responsive sooner or later to the pressure of the society it serves; this is an uncontestable fact.

THE PHYSICAL THERAPIST

Before levels of competency can be studied realistically, the role of the physical therapist must be considered. What does the physical therapist do?

The physical therapist is a clinician who evaluates the patient's capabilities and limitations and then plans and executes the physical therapy program for which the patient has been referred by his personal physician. The physical therapist utilizes a special body of knowledge relating to the therapeutic effects of physical energies and the physiological responses they produce. He is well acquainted with the sources of these energies. He appreciates the psychological reactions of the patient and is keenly attuned to them. He has an understanding of the forces of society upon the patient and realizes the economical and social as well as the psychological impact of disease and injury upon the patient, his family, the community, the state, and the nation. He knows the various community resources available to the patient and does not hesitate to recommend their use to the referring physician. He is a member of a team whose
goal is to obtain the maximal realistic performance of each individual patient, and as such, respects the contribution of each team member.

- **The physical therapist as a supervisor** is demonstrated in a number of situations. He supervises physical therapy students in their clinical education as well as recent graduates who join the staff. Subprofessional assistants and aides need supervision as does a member of a family, or a family substitute, who has been taught a home program for a patient.

- **The physical therapist is a teacher** of every patient he sees. His students are the old and the very young, the intelligent and the retarded, the educated and the illiterate, the motivated and the lethargic, the enthusiastic and the apathetic, the aggressive and the timid. The physical therapist motivates, stimulates, and above all has patience. He is a versatile, flexible, and ingenious teacher who uses every educational device and principle of learning. He also participates in in-service programs for his colleagues and other professional groups, as well as on-the-job training for aides.

- **The role of educator** is an important and indispensable one in the continuing growth of physical therapy. As a true educator, he brings to the student the basic and relevant knowledges of the many fields upon which physical therapy is based in such a way that the student senses the richness and potential of his own intellect and is inspired to utilize his talents toward the betterment of self, his profession, and his country.

- **Physical therapists are involved in research** in which an interaction of patient service and teaching is evident. This role extends from a critical appraisal of professional literature to projects in which the physical therapist is searching for new information or is verifying old concepts in the light of new knowledge. He may work with his peers or with allied professional groups. Every physical therapist may participate in potential research by writing objective and accurate progress notes which are essential for vitally needed clinical research.

- **The physical therapist is an administrator.** Even if his is a one-man department, he is administratively responsible for the conduct of that department. As the staff increases, so do the administrative duties of personnel management, budgeting, maintenance of equipment, preparation of reports, and compilation of departmental statistics. Administrative responsibilities are a major role for the director of a school, a large clinical department, or a research project.

- **Physical therapists act as consultants** to other professional fields, to voluntary and governmental agencies and bureaus, to health organizations at local, national, and international levels. This list also includes special schools, private foundations, educational institutions, nursing homes, and the U.S. Public Health Service. Increased demand for physical therapy services by a more knowledgeable and affluent society coupled with the impetus provided by recent Federal legislation has heightened the need for additional consultant services in physical therapy.

- **The physical therapist is a professional person** who abides by his professional Code of Ethics. He is aware of the legal implications in the practice of his profession. He participates in his national and international professional Associations. As a clinician, an educator, or a researcher he contributes to the literature of his profession.

- **The physical therapist is a student** who learns from every patient he treats and every professional contact he makes. He keeps up with current trends not only in his own field, but also in sociological and cultural areas. He
reads about and puts into practice new techniques, realizing that to do otherwise leads to obsolescence and stagnation. He attends institutes, workshops, and short courses in behalf of continuing personal and professional growth.

*All along the physical therapist participates as a citizen* in community affairs, and works for the betterment of his environment. He is serious about his responsibilities to his country. He may become a world citizen by joining the Peace Corps or by working with the World Health Organization and other international health groups.

**THE CHANGING METHODS**

Has the role of the physical therapist changed? *It has not.* The founders of the profession and those who followed carried on in much the same manner as just described. Articles in our professional journal, beginning with the first issue in March 1921, and the minutes of early Executive Committee and Board meetings of the Association attest to this. What have changed drastically, however, are the methods by which these roles are executed. Vast changes in technology and methodology have evolved because of the tremendous amounts of new information, the complexities of interpersonal and interprofessional relationships, the growth and congestion of the community, and the changing patterns in some phases of health care. Some of these patterns are reversals, not changes. For example, many patients are seen in their homes today just as they were fifty or one hundred years ago, only today a health-care professional and not the physician makes the house calls.

Society is demanding easily accessible health care which will provide the best and most modern type for all people.

The physical therapist’s role has not changed, but the stage, the tools, and techniques have. Furthermore, they will continue to change. Progress is assured only when the best efforts possible are poured into the present, and when we advance step by step toward the future by accepting and practicing newly developed and improved methods based upon validated research and observation. In this way we shall continue our role of extending the best possible physical therapy.

Let us briefly review the history of physical therapy education which tries to meet current needs of quality and quantity while making every effort to anticipate future needs.

**Educational Patterns**

The first educational pattern was on-the-job apprentice learning. To meet the demand during World War I, short emergency courses in physical therapy were established in fourteen schools of physical education for women graduates because their education provided the basic requirements for physical therapy. In 1926 the American Physical Therapy Association, whose responsibilities included approval of educational programs, listed five approved schools which had been in existence for various lengths of time. They were Harvard Medical School, New Haven School of Physiotherapy, Philadelphia Orthopedic Hospital, Walter Reed Hospital, and Childrens Hospital in Los Angeles.

The obvious need for a general education in breadth, as well as professional education in depth, led to the establishment of the four-year program leading to a bac-
special satisfactions, its specific contributions, and its appeal to particular personality characteristics.

At the moment, the greatest scarcity is in the teacher category. Who is to plan and direct the new Bachelor's and Master's degree programs that are being developed? Certainly not the nearest physical therapist unless he is qualified by education and experience, and possesses the personal characteristics required to assume this responsibility. Who will structure and direct the Associate of Arts courses when they are started? How many physical therapists with doctorates are available for deanships in schools of allied health professions or schools of physical therapy? Is it not high time to give serious study to the criteria and standards of a doctoral degree in physical therapy?

Responsibility for our educational programs at all levels of competency is our exclusive right, and recruitment is our obligation. As a starter, each member should make a point to interest a young person in becoming a physical therapist next year; half should start on a Master's degree program next year, and half with Master's degrees should start on a doctorate next year.

TOWARD TOMORROW

Taking stock by a profession or by an individual is a fruitless process unless action is followed by plans and activity which will lead to excellence and continued growth and development. After this brief review of the history of physical therapy as a profession and the development of physical therapy educational programs, and after pointing out a few of the most urgent problems and most glaring frustrations, let us take a hard and
realistic look at possible solutions which will insure the future of the profession. Let us do this with the affirmative force of a mature profession.

Professional progress and development depend upon authority commensurate with responsibility. Therefore, physical therapy departments should be directed by physical therapists who are responsible to the administrative division of the hospital, clinic, or treatment center in which the departments are located. Professional physical therapists should be in charge of the supervision of all subprofessional physical therapy personnel be they in hospitals, clinics, treatment centers, nursing homes, home-care programs, or public health units.

The members of any profession are keenly aware of their own educational philosophies, goals, and objectives. They have a background of experience in their particular field which unequivocally qualifies them to establish criteria and standards for educational programs of excellence. Therefore, the education of physical therapists is the prerogative of qualified physical therapy educators who are directly responsible to the dean or president of the schools, colleges, or universities in which the programs are located.

One of the philosophical tenets of the profession is that the patient should receive the best possible physical therapy. This includes not only the services administered by the professional physical therapist, but also those given by subprofessional assistants and aides who provide a limited extension of physical therapy. The implementation of this philosophy begins with the education or training of these workers. Therefore, the planning and execution of programs in junior and community colleges are the functions of the professional physical therapists as are formal and in-service programs for aides.

The shortage of physical therapists and the increased need for the elementary physical therapy procedures required for comprehensive care in out-of-hospital environments have led to a spawning of short courses relating to physical therapy. These courses are for personnel supervised by other professions and they are usually taught by non-physical therapists. At best, and for obvious reasons these courses are dilute and superficial. They should be taught by specialists in the field. Therefore, physical therapists should be called in to teach elementary physical therapy procedures to other health-care personnel regardless of the profession that is administratively responsible for them.

The pattern for accrediting professional educational programs in the United States is for the professional association of each particular profession to have the primary responsibility of accreditation. This is the only logical approach. Who is better qualified or more aware of the criteria and standards of its educational programs than members of the profession? How can a profession call itself mature if its standards of education are contingent upon the approval of another profession? Therefore, the American Physical Therapy Association and physical therapy educators should have the primary responsibility for accrediting all formal educational programs in physical therapy and be so recognized by the National Commission on Accrediting.

We should make a diligent effort to increase our sphere of contacts. We could do this by increasing the range of our publications to reach a wider audience. This is particularly true in education. Should we not have a quarterly publication devoted to the education of physical therapists which would be available to other educators?

Because verbal communication is important in widening horizons, every physical therapist should be
articulate in relating his profession to allied fields, in
delineating his services to the community, in portraying
his role in comprehensive health care, and in recruiting
students.

CONCLUSION

Waiting with a purpose is patience. It is daw-
dling when there is no evidence of fulfillment of purpose,
and we have waited too long. The time is here when
we must meet the challenges upon which depend the
very existence of our profession. We must stand on our
merits and defend our boundaries. We have earned this
right.

I should like each of you to leave this hall with pride
in the service you give, with an awareness of your limita-
tions and the determination to do something about
them, with an appreciation of your responsibilities and
the courage to demand, and to accept, the authority
which rightfully accompanies such responsibilities.

If this hard look means a repudiation of hypocritical
humility, and is a public acknowledgement of merited
worth with a call to determine our own course, then,
so be it.

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Sixteen
The McMillan Lecturers
1964 - 2005

"The three essentials for success are Vision, Faith, and Courage."

Mary McMillan

McMillan Lecturers
Vision • Faith • Courage
The McMillan Lecturers

1964 - 2005

“The three essentials for success are Vision, Faith, and Courage.”

Mary McMillan

McMillan Lecturers
Vision · Faith · Courage
Introduction

In 1963, the Mary McMillan Lecture Award was established to pay tribute to Mary McMillan (deceased 1959), dedicated pioneer of physical therapy in the United States and abroad, the founding President of the American Physical Therapy Association, and an esteemed teacher.

It would be hard to overestimate the contributions of this remarkable woman to physical therapy and to the American Physical Therapy Association. As the guiding spirit of the profession, Mary McMillan led the way toward higher standards in treatment and started physical therapists on the road toward greater professional service to their patients.

It is in this spirit that the American Physical Therapy Association (APTA) established the Mary McMillan Lecture, the association's highest honor. This award is bestowed annually to acknowledge and honor a member of the American Physical Therapy Association who has made a distinguished contribution to the profession.

This booklet contains a short profile of each of the 36 McMillan Lecturers, at the time of their award, and the Foundation for Physical Therapy, Inc., is pleased to provide a copy to each 2005 dinner dance participant.

June 9, 2005
Annual Dinner Dance Silent Auction
Boston, Massachusetts

Foundation for Physical Therapy
Mildred O Elson was the first recipient of the Mary McMillan Lecture Award in 1964. She graduated from the Sargent School of Physical Education and from the Harvard Medical School physical therapy program. Ms Elson was the first executive director of the American Physical Therapy Association from 1944 to 1956, and was the first president of the World Confederation for Physical Therapy (WCPT) from 1951 to 1955. She was also an editor of *Physical Therapy Review*. Ms Elson was a charter member and the first president of the Wisconsin Chapter of APTA from 1932 to 1936.
Catherine A Worthingham was the second recipient of the Mary McMillan Lecture Award in 1965. She graduated from Pomona College and received her doctorate from Stanford University and an honorary Doctor of Science degree from Boston University. Dr Worthingham was president, vice president, and director of the American Physical Therapy Association, as well as and president of the Northern California Chapter. She is the author of "Upper and Lower Extremity Muscles and Innervation Charts" and co-authored "Muscle Testing: Techniques of Manual Examination and Therapeutic Exercise for Body Alignment."

Ruby Decker was the third recipient of the Mary McMillan Lecture Award in 1966. She graduated from the University of Houston with a bachelor's degree, and received her physical therapy certificate from the University of Texas Medical Branch. She served as a Reconstruction Aide during World War I. Ms Decker served the American Physical Therapy Association at the national level on the Nominating Committee and School Section and at the state level as president and director of the Texas Chapter. She served as a regional chairman and as vice president of the Council on Physical Therapy School Directors. Ms Decker also published numerous articles in APTA publications.
The Fourth Mary McMillan Lecture

Presented in 1967 by
Emma E Vogel, PT, Colonel, USA (Ret)

Emma E Vogel was the fourth recipient of the Mary McMillan Lecture Award in 1967. She was one of Mary McMillan's students at Reed College during World War I. She remained in the Women's Medical Specialists Corps and became the first physical therapist commissioned officer. Colonel Vogel retired in 1957.

The Fifth Mary McMillan Lecture

Presented in 1968 by
Helen L Kaiser, PT

Helen L Kaiser was the fifth recipient of the Mary McMillan Lecture Award in 1968. She graduated from the Sargent College of Physical Education and the Harvard Medical School physical therapy program. She was a past president and director of the American Physical Therapy Association. She was an organizer of the Association’s Michigan Chapter and a president of the Ohio Chapter. Ms Kaiser also served on the APTA Education Committee. Ms Kaiser served on the faculty at Duke University for many years. She received the Humanitarian Award from Sargent College and the Golden Crutch Award from Duke University.
Margaret S Rood was the sixth recipient of the Mary McMillan Lecture Award in 1969. She graduated from Downer College with a degree in occupational therapy and received her physical therapy certificate from Stanford University. She made numerous contributions to physical therapy, particularly in the area of education.

Lucy Blair was the seventh recipient of the Mary McMillan Lecture Award in 1971. She received her physical therapy degree from the Harvard Medical School for Graduates, and received her master's degree from Columbia University. Ms Blair served as executive director of the American Physical Therapy Association from 1961 until 1971. She served as a WAVE Lieutenant in the US Navy during World War II, and was a pioneer in the public testing of the Salk vaccine for poliomyelitis.
The Eighth Mary McMillan Lecture

Presented in 1972 by
Margaret Knott, PT

Margaret Knott was the eighth recipient of the Mary McMillan Lecture Award in 1972. She graduated from Appalachian State Teachers College with a bachelor's degree in physical education and science, and received her physical therapy certificate from Walter Reed Army Hospital. Ms Knott served as a second lieutenant in World War II. She was a past director of the American Physical Therapy Association, and wrote numerous articles for *Physical Therapy*. Ms Knott received an honorary fellowship from the Chartered Society of Physiotherapists and an honorary membership from the Canadian Physiotherapy Association. Ms Knott co-authored *Proprioceptive Neuromuscular Facilitation* and taught the techniques worldwide.

The Ninth Mary McMillan Lecture

Presented in 1973 by
Lucille Daniels, PT, MA

Lucille Daniels was the ninth recipient of the Mary McMillan Lecture Award in 1973. She graduated from Peabody College with a bachelor's degree in physical education, received her physical therapy certificate from Northwestern University, and received her master's degree from Stanford University. Ms Daniels served on APTA's Nominating Committee, Education Committee, Examinations Committee, and Exhibits Committee; as associate editor of *Physical Therapy*; and as vice president of the Association. She is a co-author of the second edition of *Muscle Testing* and wrote numerous articles for *Physical Therapy*. 
Helen J Hislop was the tenth recipient of the Mary McMillan Lecture Award in 1975. She graduated from Central College in Iowa with a bachelor’s degree, and received her physical therapy certificate, master’s degree, and doctorate from the University of Iowa. Dr Hislop served as the editor of *Physical Therapy*, is a past recipient of APTA’s Golden Pen Award, and also served on the Research Committee. Among her many other honors are the Distinguished Service Award from the Arthritis Foundation, the McMillan Lectureship from Case Western Reserve University, and a fellowship of Central College. Dr Hislop is the author of the *APTA Style Manual* and numerous articles for *Physical Therapy*.

Eleanor Jane Carlin was the eleventh recipient of the Mary McMillan Lecture Award in 1976. She graduated from Beaver College and took charge of the physical therapy program at Walter Reed Army Hospital in Washington, DC. Dr Carlin was the first woman in the US Armed Forces appointed to the rank of Brigadier General. She was head of the physical therapy program at the University of Pennsylvania. She received the Distinguished Daughters of Pennsylvania Award, the Lindback Foundation Award, and an honorary degree from Beaver College.
The Twelfth Mary McMillan Lecture
Presented in 1977 by
Mary Clyde Singleton, PT, PhD

Mary Clyde Singleton was the twelfth recipient of the Mary McMillan Lecture Award in 1977. She received her bachelor’s degree from Woman’s College, University of North Carolina, and her physical therapy certificate from the Washington School of Physical Education in Washington, DC. Dr Singleton received both a master’s degree and a doctorate from Duke University. She served as president of the North Carolina Chapter, as speaker of the House of Delegates, as a chair of the Journal Committee and the Reference Committee, and as president and director of the American Physical Therapy Association.

The Thirteenth Mary McMillan Lecture
Presented in 1978 by
Margaret L. Moore, PT, EdD, FAPTA

Margaret L. Moore was the thirteenth recipient of the Mary McMillan Lecture Award in 1978. She received her bachelor’s degree in secondary education from James Madison College, her physical therapy certificate from Walter Reed Army Hospital, her master’s degree in physical therapy from the Medical College of Virginia, and her doctor of education degree from Duke University. Dr Moore received the Lucy Blair Service Award from the American Physical Therapy Association. She also was awarded the first Distinguished Educator of the Year award from APTA’s Education Section. Dr Moore was the first vice president and secretary of APTA and has served on the Nominating Committee, on the Committee on Graduate Education, and as president of the Education Section.
Helen Blood was the fourteenth recipient of the Mary McMillan Lecture Award in 1979. She received her bachelor's degree from the University of Utah and her physical therapy certificate from Stanford University. Dr. Blood received the Beatrice Woodcock Memorial Lecture ship from the Northern California Chapter of APTA. She has served as vice president of APTA, as a member of the Board of Directors and as speaker of the House of Delegates for APTA, in the Education Section, and on the Committee on Continuing Education.

Florence P. Kendall was the fifteenth recipient of the Mary McMillan Lecture Award in 1980. She received a bachelor's degree in physical education from the University of Minnesota and a physical therapy certificate from the Walter Reed Army Hospital. She was awarded the Lucy Blair Service Award. Ms. Kendall is the namesake and first recipient of the Henry O. Kendall and Florence P. Kendall Award. She served on the Task Force on Bylaws for the American Physical Therapy Association. Ms. Kendall helped to organize the Maryland Chapter, was its first president, and served on numerous committees. She was also awarded the Maryland Rehabilitation Association Certificate of Appreciation. Ms. Kendall is the author of *Muscles: Testing and Function* and *Posture and Pain*.
The Sixteenth
Mary McMillan Lecture
Presented in 1981 by
Susanne Hirt, PT, MEd

Susanne Hirt was the sixteenth recipient of the Mary McMillan Lecture Award in 1981. She received a bachelor's degree in physical therapy from the University of Wisconsin and a master's degree from the University of Virginia. She has been president and chief delegate of the Virginia Chapter of the American Physical Therapy Association. Dr. Hirt has also served on the APTA Board of Directors. She spent over 30 years at the Medical College of Virginia, educating over 1,000 students.

The Seventeenth
Mary McMillan Lecture
Presented in 1982 by
Dorothy E Voss, PT

Dorothy E Voss was the seventeenth recipient of the Mary McMillan Lecture Award in 1982. She received a bachelor's degree in physical education from Western State Teachers College and graduated from the Harvard Medical School physical therapy program. She served as an editor of Physical Therapy and was a recipient of the Lucy Blair Service Award for the American Physical Therapy Association. Ms. Voss is a co-author of all three editions of Proprioceptive Neuromuscular Facilitation.
Nancy T Watts was the eighteenth recipient of the Mary McMillan Lecture Award in 1983. She graduated from Grinnell College with a Bachelor of Science degree in biology and received her physical therapy certificate from Simmons College. Dr Watts received her master's degree and doctorate from the University of Chicago. She served on the APTA Board of Directors, the Committee on Graduate Education, and the Task Force on Educational Standards. She also served as a trustee for the Foundation for Physical Therapy, Inc.

The Eighteenth Mary McMillan Lecture
Presented in 1983 by
Nancy T Watts, PT, PhD, FAPTA

Eugene Michels was the nineteenth recipient of the Mary McMillan Lecture Award in 1984. He graduated from the University of Cincinnati and received his physical therapy certificate from the University of Pennsylvania. He served as the head of the Research/Education Division of the American Physical Therapy Association. Dr Michels served as president and treasurer of APTA and as president of the World Confederation for Physical Therapy (WCPT) as well as on the Journal Committee of APTA. He received the Dorothy Briggs Scientific Inquiry Award, the Lucy Blair Service Award, and the Golden Pen Award from APTA. He also received an honorary doctorate from Thomas Jefferson University.

The Nineteenth Mary McMillan Lecture
Presented in 1984 by
Eugene Michels, PT, MA, FAPTA
Geneva R Johnson was the twentieth recipient of the Mary McMillan Lecture Award in 1985. She graduated from the University of Southwestern Louisiana with a bachelor’s degree and received her physical therapy certificate from the US Army Lawson General Hospital in Atlanta. Dr Johnson received the Ohio Chapter Award, served on the Committee on Research and the Committee on Graduate Education for APTA, and was an officer in the Section on Administration and in the Education Section.

Dorothy Pinkston was the twenty-first recipient of the Mary McMillan Lecture Award in 1986. She graduated from Georgia State College with a bachelor’s degree in physical therapy and received her physical therapy certificate from Northwestern University and her doctorate from Case Western Reserve University. Dr Pinkston received the Lucy Blair Service Award from APTA. She served on the Board of Directors, the Editorial Board of Physical Therapy, and the Nominating Committee, as well as on numerous task forces and committees.
Charles M Magistro was the twenty-second recipient of the Mary McMillan Lecture Award in 1987. He graduated from Columbia University with a bachelor's degree in physical therapy. He received the Lucy Blair Service Award and the Henry O Kendall and Florence P Kendall Award from the American Physical Therapy Association, as well as the Distinguished Service Award from the Foundation for Physical Therapy, Inc. Mr Magistro served as president of APTA, as a member of the Board of Directors, on the Nominating and Finance Committees, and was President of the Foundation for Physical Therapy.

Ruth Wood was the twenty-third recipient of the Mary McMillan Lecture Award in 1989. She graduated from Mayo Clinic School of Physical Therapy. Ms Wood served as a member of the APTA Board of Directors and as speaker of the House of Delegates. She also held numerous offices within the Texas Chapter of the Association. Ms Wood was a representative of the Association to the World Confederation for Physical Therapy (WCPT). She received the Lucy Blair Service Award and the Ruby Decker Award for Outstanding Physical Therapist in Texas. She was appointed to the first Board of Physical Therapy Examiners in Texas.
The Twenty-Fourth Mary McMillan Lecture
Presented in 1990 by
L. Don Lehmkuhl, PT, PhD, FAPTA

L. Don Lehmkuhl was the twenty-fourth recipient of the Mary McMillan Lecture Award in 1990. He received his bachelor’s degree in physical education from the University of Nebraska and his master’s degree and doctorate from the University of Louisiana. Dr. Lehmkuhl was an officer several times in the Ohio Chapter of the American Physical Therapy Association and served on the Journal Committee and on the Committee on Research. He presented at numerous APTA Annual Conferences. Dr. Lehmkuhl also received the Geneva R. Johnson Lectureship from the Society for Behavioral Kinesiology.

The Twenty-Fifth Mary McMillan Lecture
Presented in 1991 by
Robert C. Bartlett, PT, MA, FAPTA

Robert C. Bartlett was the twenty-fifth recipient of the Mary McMillan Lecture Award in 1991. He graduated from Springfield College and New York University, where he received his certificate in physical therapy and a master’s degree. Mr. Bartlett received the Lucy Blair Service Award of the American Physical Therapy Association, and the Robert C. Bartlett Trustee Recognition Award and the Charles M. Magistro Distinguished Service Award from the Foundation for Physical Therapy, Inc. Mr. Bartlett served as president and vice president of APTA, and as a member of the Board of Directors. He served on the Board of Trustees of the Foundation for Physical Therapy and as president of the New York Chapter.
Mary Lou R Barnes was the twenty-sixth recipient of the Mary McMillan Lecture Award in 1992. Dr Barnes began her career in academic education at West Virginia University, where she established and chaired the physical therapy department for 11 years. She then became a professor and the department chair at Georgia State University. Dr Barnes’ honors include the Lucy Blair Service Award and the Annual Mary Lou R Barnes Convocation Series at West Virginia University. She also was the second recipient of the James Madison University Distinguished Alumni Award, granted for “excellence in her profession.”

Gary L Soderberg was the twenty-seventh recipient of the Mary McMillan Lecture Award in 1993. Dr Soderberg has been affiliated with Southwest Missouri State University and Creighton University. The list of Association awards he has garnered includes the Golden Pen Award, the Lucy Blair Service Award, the Marian Williams Award for Research in Physical Therapy, and recognition as a Catherine Worthingham Fellow.
Bella J May was the twenty-eighth recipient of the Mary McMillan Lecture Award in 1996. She graduated from the University of Miami and has served as an adjunct professor at California State University, Sacramento. Dr May was recognized as a professor emeritus at the Medical College of Georgia. From APTA she received the Lucy Blair Service Award, the Golden Pen Award, the Chattanooga Research Award, and the designation of Catherine Worthingham Fellow.

Shirley A Sahrmann was the twenty-ninth recipient of the Mary McMillan Lecture Award in 1998. She attended the Washington University in St Louis and has been affiliated with the Washington University School of Medicine. Dr Sahrmann served APTA in appointed and elected offices at the national and component levels and has been a vocal and influential supporter of the Foundation for Physical Therapy since its inception. She has been recognized by APTA with the Lucy Blair Service Award, the Marian Williams Research Award, and the Henry O and Florence P Kendall Practice Award; elected as a Catherine Worthingham Fellow; and selected as the first John HP Maley Lecturer. She also was the recipient of the Missouri Physical Therapy Association’s Outstanding Service Award for Research, the Washington University Program in Physical Therapy Alumni Award, and Washington University’s Distinguished Faculty Award.
The Thirtieth
Mary McMillan Lecture

Presented in 1999 by
Suzann K Campbell, PT, PhD, FAPTA

Suzann K Campbell was the thirtieth recipient of the Mary McMillan Lecture Award in 1999. She attended the University of Wisconsin at Madison and has been affiliated with the University of Illinois in Chicago. Dr Campbell was the first physical therapist to serve on an advisory board for the National Institute of Child Health and Human Development. Dr Campbell has been recognized by APTA with the Golden Pen Award, the Marian Williams Award for Research in Physical Therapy, the Chattanooga Research Award, and designation as a Catherine Worthingham Fellow. Section recognition includes the Section on Pediatrics’ Research Award and, the Section on Education’s Distinguished Educator Award.

The Thirty-First
Mary McMillan Lecture

Presented in 2000 by
Ruth B Purtilo, PT, PhD, FAPTA

Ruth B Purtilo was the thirty-first recipient of the Mary McMillan Lecture Award in 2000. She attended Harvard University and has been affiliated with the MGH Institute of Health Professions. In addition to being involved in APTA, Dr Purtilo served as president of the American Society of Law, Medicine, and Ethics and was a founding member of the Society of Bioethics Consultation. She is a member of many other professional organizations, including the American Association of Bioethics, the American Philosophical Association, the Society for Health and Human Values, and the World Confederation for Physical Therapy. Dr Purtilo has been recognized by APTA as a recipient of the Golden Pen Award, the Helen Hislop Award for Outstanding Contributions to Professional Literature, and a Catherine Worthingham Fellowship.
Jules M Rothstein was the thirty-second recipient of the Mary McMillan Lecture Award in 2001. He attended New York University and is now affiliated with the University of Illinois in Chicago. Dr Rothstein, a Catherine Worthingham Fellow, was appointed editor-in-chief of Physical Therapy, the Association's scientific journal, in 1989. He is the recipient of numerous awards, including the Golden Pen Award, the Outstanding Service Award for Research, the Outstanding Service Award for Continuing Education, and the Outstanding Therapist Award in the State of Illinois.

Steven L. Wolf was the thirty-third recipient of the Mary McMillan Lecture Award in 2002. He attended Boston University and Columbia University, and he has worked with Emory University. Dr Wolf's distinguished career is highlighted by numerous awards, including the Marian Williams Research Award, the Golden Pen Award, a Catherine Worthingham Fellowship, the Lucy Blair Service Award, the Helen J Hislop Award for Excellence in Contributions to Professional Literature, the Foundation for Physical Therapy's Robert C Bartlett Recognition Award, the Section on Geriatrics' Outstanding Published Paper Award, and the Neurology Section Outstanding Research Award.
Pamela W. Duncan was the thirty-fourth recipient of the Mary McMillan Lecture Award in 2003. She attended the University of North Carolina at Chapel Hill and has been affiliated with the University of Florida. APTA awarded Dr. Duncan the Marian Williams Award for Research in Physical Therapy, a Catherine Worthingham Fellowship, and the Mary McMillan Scholarship Award. She also received research awards from the APTA Neurology Section, Sports Physical Therapy Section, and Section on Geriatrics, as well as a service award from the Neurology Section. She is an elected fellow of the Stroke Council of the American Heart Association and has given eight invited lectureships at universities across the United States.

Marilyn Moffat was the thirty-fifth recipient of the Mary McMillan Lecture Award in 2004. She attended and is affiliated with New York University. Dr. Moffat has been the recipient of many APTA honors and awards. She has been recognized with APTA’s Lucy Blair Service Award, and as a Catherine Worthingham Fellow. She has received two diversity awards from the Advisory Panel on Minority Affairs, the R. Charles Harker Policy Maker Award from APTA’s Health Policy and Administration Section, and the Robert Dicus Outstanding Service Award from APTA’s Private Practice Section. She also has received the Foundation for Physical Therapy’s Charles M. Magistro Distinguished Service Award. The most significant acknowledgments of her lifelong commitment to service are the New York Chapter’s Dr. Marilyn Moffat Distinguished Service Award and APTA’s Marilyn Moffat Leadership Award.
The Thirty-Sixth
Mary McMillan Lecture

Presented in 2005 by
Rebecca L. Craik, PT, PhD, FAPTA

Rebecca L. Craik is the thirty-sixth recipient of the Mary McMillan Lecture Award in 2005. She attended Duke University and Temple University. Dr. Craik is a professor and chair of the Physical Therapy Department at Arcadia University in Pennsylvania and holds an adjunct associate professorship in the Department of Neurology at the University of Pennsylvania, School of Medicine, and an adjunct assistant professorship in the Biomedical Engineering Program at Drexel University. She has served for 20 years on the Editorial Board of *Physical Therapy* and has served as acting co-editor and deputy editor. She has been recognized by APTA with the Lucy Blair Service Award, the Achievement Award in Physical Therapy, designation as a Catherine Worthingham Fellow, the Neurology Section's Research Award, and the Neurology Special Interest Group Award from the Pennsylvania Physical Therapy Association. She served as a Trustee for six years on the Foundation for Physical Therapy's Board of Trustees.
Mildred O. Elson was the first recipient of the Mary McMillan Lecture Award in 1964. She was graduated from the Sargent School of Physical Education and from the Harvard Medical School physical therapy program. Ms. Elson was the first executive director of the American Physical Therapy Association—from 1944 to 1956—and was the first President of the World Confederation for Physical Therapy (WCPT)—from 1951 to 1955. She was an editor of Physical Therapy Review. Ms. Elson was a charter member and the first president of the Wisconsin Chapter of APTA, from 1932 to 1936.
FIRST MARY McMILLAN LECTURE

The Legacy of Mary McMullan

MILDRED O. ELSON

In this first Mary McMullan lecture which is my great privilege and honor to give, it seems fitting to recall some highlights of Mary McMullan's life which reflect her life-long dedication to her profession and the warmth and vitality she gave to it. It also seems fitting to ask ourselves whether we have been worthy of her legacy to us, our profession and our Association, given in loving trust, and to examine with minds and hearts our responsibilities for their future.

Little did Miss McMullan realize as she began her studies in Liverpool, England, sixty-four years ago that she was destined to be the founder of physical therapy in the United States, her native land. Following the death of her mother, she had gone to England as a small child to live with her aunt. How she happened to become interested in physical culture and corrective exercises, as the course of study was then called, is not known. Possibly her decision was influenced by the motto of the Clan McMullan: "I learn to succor."

She herself said, "After two years in college in which I was working toward a Bachelor's degree, I decided to break away, against my family's wishes, to do that which I had wished to do more than anything else in the world for over a year." After completing another two years of study she, characteristically, believed it was not enough and went to London for special courses in neuroanatomy, neurology, and psychology. She then accepted a position in a children's hospital whose chief orthopedic surgeon was the great Sir Robert Jones. Later Sir Robert and the equally eminent Dr. Robert Lovett, of Boston, co-authored the treatise Orthopedic Surgery which was the "bible" of all physical therapists in the 1920's and early 1930's.

When England was facing the early days of World War I, Miss McMullan recalled, "There was
A V.A.D. unit [volunteers] to which I belonged. It was heartening to find that my physical examination presented you, Mr. Reed, for promotion. This the fact that I had been there by 1921, Miss McMillan argued that she was spending a sufficient part of her day on the physical therapy association and if for ever got started she was looking for a leav. To another of your poetic nature would be aIESsible epistles... think, dear, of the number of letters that my poor incompetent head has had to plan and then judge me hardly if you dare! Also, she noted that she had been working alone since Miss Sanders was busy with school work.

Even though "these many hours" were being spent on the physical therapy association, her enormous capacity for work in her profession was further evident by the writing of her first textbook in the physical therapy by an American. Her classic Manual and Therapeutic Exercise was published by W. B. Saunders Company in 1921. The third and last edition appeared in 1932.

**Elected First President**

The leotard which Miss McMillan anticipated did not materialize, for on March 24, 1921, a mail ballot revealed that she had been elected the First President of the American Women's Physical Therapeutic Association. The ballot was sent to the members of the Association as it appeared in the June 1921 issue of the P.T. Review. In this message, she stressed the importance of the new Association. This she was to repeat many times during her life. Miss McMillan said, "our society does not represent a national association, it is the beginning of the Physical Therapy profession."

**Reconstruction Aides**

A physical therapist in a large Army hospital with no room to have a patient who had knowledge of Army procedure and protocols, and with no one who had knowledge or even written about physical therapy. Miss McMillan was to say later with engaging humor and twinkle in her eyes, "I tried to sell physical therapy and to sell myself...it was a hard job, but it took a long time for the likes of me." But the mark of greatness which was to grow in succeeding years was emerging. Her bubbling

Good humor, innate perception, faith, and good manners masked a stubbornness which would carry her through the years in which she encountered in herself at Walter Reed. Another good point was her ability to express sincerely deep appreciation to each and every one who worked for her. It was never "me," but always "we."

After her return to the U.S.A. and her home near Boston, Miss McMillan accepted a position at Children's Hospital in Portland, Maine. By this time the United States was already at war, and wounded American soldiers were being returned to the country for reconstructive surgery and rehabilitation. Even though Miss McMillan had not qualified physically for overseas duty with the British Army while in England, she had served with her unit in a base hospital near Liverpool. She knew from personal experience the type and extent of the injuries incurred in combat and the treatment required for rehabilitation.

When the War ended, she returned to her native land, she was ready. So much so, that her bag was packed and off she went to Washington without waiting for travel orders.

During her stay in Washington, who had been giving corrective exercises in Dr. Joel Goldsmith's office (and who later was to become the Director of the Boston School of Physical Education), was already in Washington in the Surgeon General's office. Miss McMillan had been hearing about the work of the physical therapy departments and in the discharge of the Aides at Fort Sheridan, Illinois, San Francisco, Pittsburgh, and over the country by Mr. Frank Granger, of Boston, and Dr. Harold Ebersolt of Plainfield, New Jersey, were actively urging that an association be formed. Therefore, when the prospectives of the new Association, as developed by Miss McMillan based on the suggestions of many, was received in the Army that the idea of an association was born. Many who had headed the Reconstruction Corps Corps said that their interest in the new Association is now a national association that is immediately and effectively.

The first prospectus included the purposes:

1. To form a national organization.
2. To standardize and to place physical therapy on a scientific basis in the medical field.
3. To offer the medical profession efficiently trained women.
4. To establish standards in clinics and general hospitals.

Qualifications for membership included:

1. Graduation from colleges or normal schools in physical therapy.
2. Training and experience in massage, therapy exercise, and some knowledge of electrotherapy and hydrotherapy.
3. All of this professional work was done prior to the historic organizational meeting at Keen's Chop House in New York City on January 15, 1921. In a letter to a colleague who was trying to strengthen his physical therapy association and if ever got started she was looking for a leav. To another she wrote:

Miss McMillan noted that she had been working alone since Miss Sanders was busy with school work.

Even though "these many hours" were being spent on the physical therapy association, her enormous capacity for work in her profession was further evident by the writing of her first textbook in the physical therapy by an American. Her classic Manual and Therapeutic Exercise was published by W. B. Saunders Company in 1921. The third and last edition appeared in 1932.

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It would not be consistent with the character of Miss McMillan if great tribute was not paid and recognition given to her colleagues, the charter members, and the many physicists who worked with her counsel and encouragement to the birth of a new profession and its associations.

Later at one of the Annual Conferences of the American Physical Therapy Association Miss McMillan recalled these days and said: "We are all here today to see what we can make of my profession and to see what I can do to create and maintain stand-

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TAKING PHYSICAL THERAPY TO CHINA

During the next ten years Miss McMillan was to prove her profession in Boston in Dr. Bracken's office, continue her teaching, and participate in the growth of the Association as chairman and member of the Massachusetts Chapter. Strength and energy were being built up for her next challenge, China. In 1932 she went to China under the auspices of the Chinese Medical Board of the Rockefeller Foundation to be in charge of the Department of Physical Therapy at Union Medical College Hospital. There, Miss McMillan, as the first international physical therapist, added another dimension to training and rewarding service, but the chapter was destined to end ten years later in sorrow.

Her trust, wisdom, perceptiveness, and gentleness as she embarked on this new venture, are a lesson in international relationships to all. She studied the Chinese language and culture; she observed that China had existed centuries before she arrived in Peking and that it was her responsibility to adjust to it. She must wait, she told herself, until the Oriental became accustomed to the Occidental, and, in turn, she must become accustomed to him, before she could expect to win their confidence. Miss McMillan came to love China and Chinese very deeply, and they, too. Once more she started as she did at Walter Reed—treated the patients, taught physical therapy and herself to the staff of the hospital. "It was not easy, but as the frequent Chinese saying goes, "One is not a skilled patient until he has also been a skilled teacher."

Students were selected for training in physical therapy from the nursing staff at the hospital, many of whom were sent to the United States for a basic course of study. One of them, Miss Mabel Mead, later went to China and established the first Chinese physical therapy school.

The American Red Cross, the China City Mission, and the Sino-American Mission were among the early friends of Miss McMillan's work in China. The Chinese people were greatly affected by the example of the physical therapists, and the lessons of good health and hygiene were spread through their influence.

Miss McMillan's contributions to the field of physical therapy were recognized and honored by her peers. She was awarded the Silver Anniversary Medal in 1946 at the annual conference of the American Physical Therapy Association, and was presented with the international Good Citizenship Award in 1950.

A TRIBUTE

At the 1949 Annual Conference in Boston, once again tribute was paid to Mary McMillan. She, as always, graciously accepted the award and in turn paid tribute to all the many members who, she said, had worked so devotedly to bring about the growth and development of the Association. During the ensuing years until her death in 1959 Miss McMillan continued to be a source of strength and inspiration to the Association, its members, its officers, National Office staff, and students. She embraced happily the opportunity to speak to students when she visited various sections of the country, and their responses to her were immediate and warm. Her presence at National Conferences always added an extra sparkle. Her visits to the National Office were in session, or just in chat with the National Office staff, gave evidence of her continuing interest in projects and programs concerned with education for physical therapy or the utilization of physical therapies in services for people around the world.

Her sights were never narrow as her life showed. The American Physical Therapy Association has been a member of the World Federation for Physical Therapy since its founding in 1962, and Miss McMillan served on the Executive Committee of the Federation for Physical Therapy with its opportunity to foster the development of physical therapy in countries where it was not available. As the first woman to serve on this committee in 1962, she was a trailblazer for women in this profession. Her influence and commitment to the advancement of physical therapy were recognized and honored by her peers.

Miss McMillan was a woman of wide-ranging interests and achievements. She was not only a physical therapist, but also a musician, a painter, and a writer. Her contributions to the field of physical therapy were numerous and varied, and her influence and inspiration continue to be felt today. She was a true pioneer in the field, and her legacy to us, the members of the American Physical Therapy Association, is a living vital challenge. Would that we could emulate her smaller amounts, her compassion and dedication, her wisdom and her courtesy, her spirit of service, her sense of humor, coupled with her sensitivity to people and situations, her belief in the dignity and in-
tegrity of all people, and her vision to help us meet and solve perplexing problems with wisdom and understanding! With these attributes, the unity, purpose, and strength of our Association would never be threatened from within or without.

Were she here today she would say firmly and convincingly that these qualities are present in abundance, and that her trust is in us as complete. She might add, we must be ever climbing the mountain and no matter how steep the ascent, we must be prepared for hard knocks. For, how else can we grow strong? She would remind us to listen with minds and hearts to one another and to be concerned for the needs of patients wherever they may be, here, in China, or anywhere in the world.

President John F. Kennedy once said, “It is our task in our time and in our generation to hand down undiminished to those who come after us what was handed down to us by those who went before… To do this requires constant attention and vigilance, sustained vigor and imagination.”

May we who have received the precious legacy of Mary McMillan, our profession and our Association, cherish and nurture it, that we in turn may hand it down, as glowing and vital as the spirit of our beloved founder, the immortal Molly McMillan.

The Second Mary McMillan Lecture
presented
June 28, 1965
Cleveland, Ohio
by
Catherine A. Worthingham, PhD, DSc, PT, FAPTA

Catherine A. Worthingham was the second recipient of the Mary McMillan Lecture Award in 1965. She was graduated from Pomona College, and received her doctorate from Stanford University and an honorary Doctor of Science from Boston University. Dr. Worthingham was President, Vice President, and Director of the American Physical Therapy Association and President of the Northern California Chapter. She wrote *Upper and Lower Extremity Muscles and Innervation Charts* and co-authored *Muscle Testing: Techniques of Manual Examination and Therapeutic Exercise for Body Alignment*. 
THE 1965 MARY McMillan LECTURE

COMPLEMENTARY FUNCTIONS AND RESPONSIBILITIES

in an Emerging Profession

CATHERINE A. WORTHINGHAM, PH.D., D.Sc.

I stand before you today with a sense of great obligation to the pioneer and leader in physical therapy, Mary McMillan, in whose honor this lecture series was established.

Mary McMillan, if she could be here, would be gravely concerned about a number of problems facing the members of this Association. I firmly believe she would state these problems clearly and make every effort to see that they were faced squarely, fairly, and to the best advantage to the field of physical therapy to which she was dedicated.

Therefore, to fulfill my obligation to Miss McMillan and to the Association which has given me the privilege of presenting this lecture, I should like to discuss with you certain important complementary functions and responsibilities of an emerging profession.

I use the term "emerging profession" advisedly, for as much as we would like to think so, physical therapy is not yet completely recognized as a profession.

The sociologist, Bernard Barber, reminds us that there are a number of steps an occupation must take on its way to becoming a profession.

The leaders of an emerging profession may acknowledge the present and obvious inadequacies of their group, but they compare these inadequacies to ones that existed in the past among professions already established.

In the attempt to express and strengthen the
complementary function of their group, the leaders must establish or try to strengthen a professional association. In an established professional association, such as the American Medical Association, the leaders and the membership take an active role in the development and implementation of policies and procedures. The leaders are responsible for the overall direction and operation of the association, and they must be able to communicate effectively with the membership and the general public. The leaders must also be able to work collaboratively with other organizations, such as the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists, to achieve common goals.

IDENTITY OF PHYSICAL THERAPY

A third problem which demands immediate concern and attention is the maintenance of the identity of the physical therapy profession. If there is any doubt in your mind as to the need for this effort, I suggest that you make a personal survey in your own locality when you can have a chance for this purpose. The following questions may be useful:

1. How often does "Physical Therapy" appear as the identifying designation of the service department?

2. Are physical therapy services provided as a part of the patient's hospital room service? If not, why not?

3. Is the physical therapy service a part of the institutional medical care program?

4. Is physical therapy organized and classified in the hospital's medical records?

5. Is physical therapy administered by the nursing service?

6. Is physical therapy considered a part of the patient's hospital care, and is it charged to the patient's account?

7. Is physical therapy considered a part of the patient's hospital care, and is it charged to the patient's account?

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The University

The function of the university in the education of the health professions has been discussed by many educators, but one also should mention the student's role in education. The student is an important part of the educational process, and the university must provide opportunities for the student to participate in the educational process.

The University as an Educational Environment

The university is an environment that provides opportunities for the student to learn and to grow. The university is a place where students can explore different areas of interest, develop critical thinking skills, and learn to work cooperatively with others. The university is also a place where students can develop a sense of responsibility and become active participants in their own education.

The University as a Research Environment

The university is a research environment that provides opportunities for students to engage in research activities. The university is a place where students can learn about the scientific method, develop research skills, and contribute to the advancement of knowledge.

The University as a Professional Environment

The university is a professional environment that provides opportunities for students to develop their professional skills. The university is a place where students can learn about the ethical and legal issues that are relevant to their profession, and they can learn about the skills that are necessary for success in their profession.

The University as a Community Environment

The university is a community environment that provides opportunities for students to develop their personal and social skills. The university is a place where students can learn about different cultures, develop friendships, and become active participants in their own community.

The University as an Economic Environment

The university is an economic environment that provides opportunities for students to develop their financial skills. The university is a place where students can learn about budgeting, investing, and saving, and they can develop the skills that are necessary for financial success.

The University as a Social Environment

The university is a social environment that provides opportunities for students to develop their social skills. The university is a place where students can learn about different social issues, develop friendships, and become active participants in their own community.

The University as a Political Environment

The university is a political environment that provides opportunities for students to develop their political skills. The university is a place where students can learn about different political issues, develop their own political views, and become active participants in their own community.
edge through research, faces a different challenge from the one that he or she who is training the physician, who is a
professor, and that is the challenge of the university, its academic
aspects, its teaching responsibilities, and its standards.

To hold his own in the university environment, the academic
instructor must continue to prepare himself, in depth for his teaching responsibilities.

This has come to mean at least the Master’s degree level
of education. If the emerging profession is to achieve other than courtesy acceptance from the university, for the major portion of the academic
instructor’s work, it will only mean even more education at the
doctoral level.

THE CLINICAL INSTRUCTOR

Next let us consider the extremely difficult situation
of the practitioner, at the head of a physical therapy who is a
clinical teacher associated with a university profes-
sional school. His primary responsibility is to his patient, and to the facility from which he
receives all, or the greater part, of his financial
remuneration. The service department of which
he is a member, of which the teaching responsi-


A CHANGING ENVIRONMENT

Physical therapy, as an organized group in this
country, has lost about half a century of his-
tory behind them. During this time the Associa-
tion has grown from a handful of organizations to
the professional body of 10,410 in 1965. It took twice as
many years to reach a membership of just over
1,000. Therefore, almost 90 per cent of the growth of this Association has taken place in the last twenty-five years.

In this same century, most has gone from
the steel age, to the air age, to the nuclear age, to
the space age. Each has had an effect on the
knowledge and practice of the health professions.

This period, next, has seen psychology and soci-
ology emerging as scientific disciplines. Their
importance to the education and practice of those
of us who carry responsibility for patient care is
increasingly recognized.

The development of physical therapy knowledge and practice from World War I to World War II
was so great that it is difficult to document. Since
World War II, change has been even more marked.
In the years ahead, with the already discussed
influences of new technology, it will be necessary to
adjust, if we are to hold the confidence of the
nurses and physiotherapists. And, as developments
in many fields of education and practice of the
health professions indicate, the education and practice
of those of us who carry responsibility for patient care is
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in many fields of education and practice of the
health professions indicate, the education and practice
of those of us who carry responsibility for patient care is
increasingly recognized.

What is the future of the physical therapist? It
is clear that the profession must carry
on the role of educator, in addition to the traditional
role of practitioner.

THE PRACTITIONER

The physical therapist feels a primary
responsibility to his patients and their families
so he should be taking place, experience becomes
more important than the theoretical knowledge
he has. His professional responsibility is to
his patient, and to the facility from which he
receives his income, and to the standards of
the profession, in each of which he is a member.

As we consider our three physical therapists’
characters, the first, that for them depth
and breadth of knowledge are virtually
incompatible. The second, those who are
clinical teachers, if they are to

are changing and so are their needs. If he seeks
additional preparation, he wants to be taught a new
technique or how to use a new device. He tends
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Ruby Decker was the third recipient of the Mary McMillan Lecture Award in 1966. She was graduated from the University of Houston with a Bachelor of Science degree, and received her physical therapy certificate from the University of Texas Medical Branch. She served as a Reconstruction Aide during World War I. Ms. Decker served the American Physical Therapy Association at the national level on the Nominating Committee and School Section and at the state level as President and Director of the Texas Chapter. She served as a regional chairman and as Vice President of the Council on Physical Therapy School Directors. Ms. Decker has published numerous articles in APTA publications.
A HARD LOOK

RUBY DECKER, R.S.

A PROFESSIONAL GROUP in pursuit of excellence takes stock periodically, has an analytical look at past performance and present demands, and formulates plans for the future. If a group endures for any length of time, it is because a constant self-evaluation is carried on at almost an unconscious level. This method may suffice when the group is small, but as membership and responsibility increase and society in general becomes more complicated, the necessity to formalize the process and to document it becomes evident. Documentation affirms the philosophy of the profession, states present goals and objectives, anticipates future needs, and makes known the plans to meet them. The particular contribution of a profession is delineated and its responsibilities defined. The profession is revitalized and spurred to greater efforts. Society is given the opportunity to appreciate the role of the profession.

There is no more fitting time for physical therapy to take a hard look than now during the forty-ninth year of its recognition as a health service which was accorded by the U.S. Army in 1917.

It is my privilege and honor to give the third Mary McMillan lecture. I have been in this profession almost since its beginning, and after forty-seven years of participation in almost every capacity I welcome this opportunity to take an analytical look at the past, a critical look at the present, and to make a calculated flight into the future with you.

PHYSICAL THERAPY DEVELOPS

A sense of history provides understanding of a profession’s accomplishments, its problems, and its frustrations. An objective appraisal of our background provides insight which will lead to enlightened foresight. Such an appraisal also deepens the understanding of our profession by its members.

Before World War I, physical therapy was practiced in the offices of a few orthopedic surgeons by young women who, for the most part, had graduated from schools of physical...
A HARD LOOK

education. These orthopedists were concerned about the prevention and correction of deformities, about posture, and about provision of maximal restoration of function for their patients who had anterior poliomyelitis. These young women with their basic knowledge of anatomy, kinesiology, physiology, corrective gymnastics, general exercise, and teaching methods had an excellent background for this specialized aspect of physical restoration and prevention of deformities. In 1917 the Women's Auxiliary Medical Aides Department was organized in the Surgeon General's Office for the purpose of re habilitating patients disabled by disease, injury, or congenital defect. Physical therapy departments were under the direction of physical therapists who were responsible for the conduct of the departments. Authority was commensurate with responsibility.

Shortly after World War I a good deal of emphasis was placed on machines by some physicians who fitted their offices with many types of mechanical devices. Patients exercised on some electrically powered apparatuses merely hanging on, while others required work on the part of the patient. Many kinds of electrical stimulators were used to elicit muscular contractions. Tonals and neoplasms were referred to as "conglutination" or "fulguration." In many instances, on-the-job training was given to technicians who manned these machines.

Fortunately for the profession of physical therapy, there remained a hard core of workers with appropriate academic background whose professional education had been obtained in functional performance in the shortest possible time, leaving disability. The pattern of extending physical therapy by developing innovations to meet the needs and challenges of the changing pattern of living, the trend toward urbanization, modern means of transportation, and social welfare programs. As a result, many patients who previously would not be able to go to a central unit for physical therapy; the service must be brought to them.

THE NONPROFESSIONAL ASSISTANT

The rapid addition of information being in being and the cross knowledge of our profession can only lead to growth in its field. The Medical Department at Large, Surgeon General's Office, U.S. Army.

The patient was frequently checked by the physical therapist, who was supervising the physician. Alterations in treatment were made after a two-year discussion on the part of the physical therapist and the physician.

The physicians who were particularly interested in the treatment of disease and injury by physical agents formally organized their own council shortly after World War I. In 1947 the American Medical Association officially recognized them as a specialty. A specialty board was formed which set the standards for residency training and administrative board examinations for membership to qualified candidates. When this council arbitrarily encompassed in its realm of activity the services rendered by several well-established professions, physical therapy was one of them. The workers in these specialty fields were dubbed as "technicians" since they were experts who were of service, but not a part of the medical specialty. This tag was undeserved in the first place and unfortunately has persisted in the minds of many in spite of vigorous efforts on the part of physical therapists to erase it. In far too many instances physical therapy has lost its identity when brought under the all-inclusive terms of rehabilitation or physical medicine. Occasionally in the literature, as a sort of euphemism, these terms are followed by the words "physical therapy" in parentheses (physical therapy).

Since World War II there has been increased demand for physical therapy by our society which now is realizing the important contributions made by soldiers quickly and efficiently. The demand for this type of therapy is now manifest not only in the service, but in the community. The trend toward urbanization, modern means of transportation, and social welfare programs. As a result, many patients who previously would not be able to go to a central unit for physical therapy; the service must be brought to them.

Many in our profession are concerned about this problem and are studying it at national, chapter, and district levels. Every member should be giving this serious thought and acting because physical therapists are not merely technicians whose interest is in this area. Although such programs have not yet been included in junior or community colleges, the idea is simmering. Several courses at an aide level are in progress.
and many more in the paper stage are under the control of professions that are also interested in the Association of Arts programs. This is an unenviable situation. The education and supervision of physical therapy assistants and aides at all levels of competency are the responsibility of our profession. However, the opportunity to be assured of this may be lost if the profession delays positive action any longer.

Physical therapy can be lost by default — by shirking responsibility — its right to make its own decisions. To endure in a democratic society, our profession must be responsive sooner or later to the pressure of the society it serves; this is an uncontestable fact.¹

THE PHYSICAL THERAPIST

Before levels of competency can be studied realistically, the role of the physical therapist must be considered. What does the physical therapist do?

The physical therapist is a clinician who evaluates the patient's capabilities and limitations and then plans and executes the physical therapy program for which the patient has been referred by his professional physician. The physical therapist utilizes a special body of knowledge relating to the therapeutic effects of physical energies and the physiological responses which he produces. He is well acquainted with the sources of these energies. He appreciates the psychological reactions of the patient and is keenly attuned to him. He has an understanding of the forces of society upon the patient and realizes the economical and social as well as the psychological impact of disease and injury upon the patient, his family, the community, the state, and the nation. He knows the various community resources available to the patient and does not hesitate to recommend their use to the referring physician. He is a member of a team whose goal is to obtain the maximal realistic performance of each individual patient, and as such, respects the contribution of each team member.

The physical therapist as a supervisor is demonstrating, in a number of situations, the support of physical therapy students in their clinical education as well as recent graduates who join the staff. Subprofessional assistants and aides need supervision as does a member of a family, or a family substitute, who has been taught a home program for a patient.

The physical therapist is a teacher of every patient he sees. His students are the old and young, the intelligent and the retarded, the educated and the illiterate, the motivated and the apathetic, the aggressive and the timid. The physical therapist stimulates, and above all else, he educates. He is a versatile, flexible, and ingenious teacher who uses every educational device and principle of learning. He also participates in service programs for his colleagues and other professional groups, as well as in on-the-job training for aides.

The role of educator is an important and indispensable one in the continuing growth of our profession. The physical therapist is in such a way that the student senses the richness and potential of his own intellect and is inspired to utilize his talents toward the betterment of self, his profession, and his country.

Physical therapists are involved in research in which an interaction of patient service and teaching is evident. This role extends from a critical appraisal of professional literature to projects in which the physical therapist is searching for new information or verifying old concepts in the light of new knowledge. He may work with his peers or with allied professional groups. Every physical therapist may participate in potential research by writing objective and accurate reports which are essential for vitally needed clinical research.

The physical therapist is an administrator. Even if he is a one-man management, he is administratively responsible for the conduct of that department. As the staff increases, the administration of personnel management, budgeting, maintenance of equipment, preparation of reports, and compilation of departmental statistics. Administrative responsibilities are a major role for the director of a school, a large medical department, or a research project.

Physical therapists act as consultants to other professional fields, to voluntary and governmental agencies and bureaus, to health organizations at local, national, and international levels. This list includes special schools, private foundations, educational institutions, and the U.S. Public Health Service. Increased demand for physical therapy services by a more knowledgeable and affluent society coupled with the incentives provided by recent Federal legislation has heightened the need for additional consultant services in physical therapy.

The physical therapist is a professional person. He subscribes to the professional Code of Ethics. He is aware of the legal implications in the practice of his profession. He participates in his national and international professional associations. As a clinician, an educator, or a researcher he contributes to the literature of his profession.

The physical therapist is a student who learns from every patient he treats and from every professional contact he makes. He keeps up with current trends not only in his own field, but in all fields of science and educational areas. He reads about and puts into practice new techniques, realizing that to do otherwise leads to stagnation and stagnation. He attends institutes, workshops, and short courses in behalf of continuing personal and professional growth.

All along the physical therapist participates as a citizen in community affairs, and works for the betterment of his environment. He is serious about his responsibilities to his country. He may become a world citizen by joining the Peace Corps or by working with the World Health Organization and other international health groups.

The Changing Methods

Has the role of the physical therapist changed? It has not. The founders of the profession and those that followed carried on in much the same manner as just described. Articles in our professional journal, beginning with the first issue in March, 1921, and the minutes of early Executive Committee and Board meetings of the Association attest to this.

What has changed drastically, however, are the methods by which these roles are executed. Vast changes in technology and methodology have evolved, and the need for the tremendous amounts of new information, the complexities of interpersonal and interprofessional relationships, the growth and congestion of the community, and the changing patterns in some phases of health care. Some of these changes are reversible, not changes. For example, many patients are seen in their homes today as they were few or one hundred years ago, only today a health-care professional and not the physician makes the house calls. Society is demanding easily accessible health care which will provide the best and modern type for all people.

The physical therapist's role has not changed, but the stage, the tools, and techniques have. Furthermore, they will continue to change. Progress is assured only when the professionals possible are poured into the present, and when we advance step by step toward the future by accepting and practicing newly developed and improved methods based upon validated research and observation. In this way we shall continue our role of extending the best possible physical therapy.

Let us briefly review the history of physical therapy education which tries to meet current needs of quality and quantity while making every effort to anticipate future needs.

EDUCATIONAL PATTERNS

The first educational pattern was on-the-job apprenticeship learning. To meet the demand during World War I, short, emergency courses in physical therapy were established in fourteen schools of physical education for women graduates because their education provided the basic requirements for physical therapy. In 1926 the American Physical Therapy Association...
A HARD LOOK

The American physical therapy profession is in a state of development and growth. The profession is poised to take on new challenges and responsibilities, and the future looks promising. The increasing demand for physical therapy services is driving the need for more therapists, and the profession must continue to evolve to meet this demand. The challenges of the future will require a strong commitment to education, research, and practice. The American Physical Therapy Association (APTA) plays a crucial role in supporting the growth and development of the profession. APTA provides leadership, resources, and advocacy to promote high-quality physical therapy services for all. With the support of APTA, the physical therapy profession can continue to thrive and make a positive impact on the health and wellbeing of the public.
Emma E. Vogel was the fourth recipient of the Mary McMillan Lecture Award in 1967. She was one of Mary McMillan’s students at Reed College during World War I. She remained in the Women’s Medical Specialists Corps becoming the first physical therapist commissioned. Colonel Vogel retired in 1957.
The History
of Physical Therapists,
United States Army

EMMA E. VOGEL, Colonel, United States Army, Retired

In the First Mary McMillan Lecture, Mildred Elson ably discussed the problems incident to the establishment of the Army physical therapy program during World War I insofar as they were related to Mary McMillan. It is now my honor and privilege to present the Fourth Mary McMillan Lecture, in which I will discuss some of the problems incident to the Army physical therapy program from World War I to the present time. I have accepted this honor with keen awareness of the profound influence Mary McMillan had upon me and my professional career. I shall forever be indebted to her for her inspirational guidance.

It was my good fortune and privilege to be one of Miss McMillan's students in the first Emergency Physical Therapy Course conducted at Reed College, Portland, Oregon, during World War I, and to be one of her assistants for the second course. Later, it was also my good fortune and privilege to be assigned to Walter Reed General Hospital, Washington, D.C., where Miss McMillan was the Supervisor of Physical Therapists. Again, it was my good fortune to be selected to succeed her in that capacity when she resigned from that position in 1920. I vividly recall her enthusiasm, her interest in maintaining high professional standards, her warm personality, and her indomitable spirit.

When I accepted the honor of presenting this lecture, I was not immediately aware that 1967 marks an anniversary for Army physical therapy. It was fifty years ago, in August 1917, that Dr. Frank B. Granger, a pioneer in physical therapy in Boston, was commissioned in the Officers' Reserve Corps, and ordered to the Office of The Surgeon General of the Army to...
 HISTORY OF ARMY PHYSICAL THERAPISTS

establish a physical therapy program for the rehabilitation of the World War I wounded. It
seemed most appropriate at this time to review some of the events of these past fifty years. For
this purpose, I have divided the lecture into three parts: World War I to World War II, the
Second World War, and the post-World War II years to the present time.

WORLD WAR I TO WORLD WAR II

Physical therapy as an integral part of the Army hospitalization program and as a profession in the United States began during World War I. Many Army medical officers were exceedingly skeptical of the value claimed for this new profession, but reconciled themselves, saying that this intruder into the medical world was but a passing fad.

A few officers believed that the profession should have a permanent place in the Army program, while others thought that little was to be gained by including it in peacetime plans. Others conceded that physical therapy had helped to improve the morale and general condition of patients, and had made a major contribution to the care of those with orthopedic and neurological problems.

Among the World War I medical officers who were impressed with the value of physical therapy was a young orthopedic surgeon—a Regular Army officer—the late Norman T. Kirk. He continued to be enthusiastic about physical therapy all through his Army career, first as a ward officer, then as chief of the orthopedic and surgical services, and later as a hospital commander. He became the Surgeon General of the Army during World War II and, in that capacity, General Kirk played a vital role by initiating legislation which authorized the permanent military status for nurses, physical therapists, and other medical specialists in the Regular Army.

The peak patient load in Army hospitals in this country during World War I occurred in April 1919, by which time physical therapy clinics had been established in forty-six Army hospitals. As patients were discharged, there was a gradual cutback in the physical therapy program, so that by June 1920, hospitals with such facilities were reduced to eleven, served by approximately 175 physical therapists. By June 1921 the number of hospitals so equipped was reduced to only six.

In the following years, physical therapy programs were continuously recuperating and expanded. As a result there was a general trend away from the "bake and massage" techniques routinely prescribed during World War I to more emphasis on active exercise. The full acceptance of physical therapy by the Medical Department was assured when clinics were incorporated into the plans of all Army hospitals constructed during the late twenties and early thirties.

In general, the success of the program at the hospital level during these years was in direct ratio to the professional and administrative abilities of the chief physical therapist. With frequent changes in the only nominally medical supervision, the continuity of the program came to be more and more her responsibility. Although no directives were issued by the Surgeon General's office, it came to be understood that the chief was not only responsible for the entire physical therapy program, but also for maintaining liaison with other hospital services as well.

The rapid expansion of physical therapy in civilian and other Federal hospitals often forced experienced and well-trained physical therapists to more remunerative fields. By late 1921, the separation of physical therapists had been accelerated to such extent that the Medical Department was faced with an acute shortage of these personnel.

At that time, no basic civilian physical therapy courses were conducted in the United States from which such personnel could be recruited. Therefore, the Director of Physical Therapy at Walter Reed General Hospital recommended that the Army establish its own training program. This recommendation was accepted by the Surgeon General and plans were made immediately to implement this training.

The first course of four months duration began in the fall of 1922 and was available to otherwise qualified applicants who had satisfactorily completed not less than two years in an accredited school of physical education. It was soon apparent that the length of the course, as well as the educational background of the ap- plicant, were not adequate to produce the high type of professional woman the Army needed to keep pace with this advanced profession. The course was lengthened to six months in 1924, to eight months in 1930, to nine months in 1932, and to twelve months in 1934. Concurrently the educational prerequisite was raised to completion of four years of college with a major in physical education.

The course was given annually at Walter Reed General Hospital from 1922 until 1941 (when it was changed to an emergency program) with the exception of the 1933-1934 year. In this year training was suspended for one year because of lack of funds. In 1928, the American Physical Therapy Association assumed the function of an accrediting body, the Army course was among the first group of schools to be approved. In 1936, when the Council on Medical Education and Hospitals of the American Medical Association became the official accrediting body, this course was likewise approved and has continued to be so approved to this day.

From 1922 until 1938, all vacancies for Army physical therapists were filled by graduates of these courses. In many respects, this was an advantage. Since all physical therapists had received the same type of training, uniformity in the treatment program and high professional standards were achieved in all Army hospitals—even in the absence of directives from the Office of The Surgeon General. The existing low salaries continued to be a stumbling block to the retention of many of the graduates in the Army beyond the period of obligated service.

In 1931, the Supervisor of Physical Therapists at Walter Reed General Hospital (this writer) forwarded a study to The Surgeon General, in which she pointed out, as she had done many times previously, that there had been no significant change in the salaries of physical therapists since World War I. Inasmuch as the Medical Department had accepted physical therapy as a valuable adjunct to medicine and surgery and maintained in the contention that salaried should be sufficiently alluring to retain experienced and well-trained personnel. In addition, she recommended the establishment of a Medical Auxiliary Corps and a Reserve Corps, to consist of dietitians, physical therapists, and other medical specialties.

The Surgeon General agreed with the recommendations for a salary increase in principle, but because of lack of funds, no action was taken. Neither was action taken on the other proposals. No one perceived at that time that what was planned for the world would be thrown into an international crisis that would not only intensify the physical therapist procurement problem, but also pinpoint the need for military status for such personnel and necessitate centralized supervision of physical therapy in the Office of The Surgeon General.

In 1933 and 1934 the personnel situation became acute. Because of lack of funds for payment of salaries, the number of physical therapists who could be employed in Army hospitals was markedly reduced. As a result, the program was drastically curtailed in some Army hospitals and eliminated altogether in others. Physical therapists who remained on duty at greatly reduced salaries often worked long beyond the normal working hours, not only to maintain professional standards, but also to sustain the morale of the patients. This situation forced the need for a permanent status for physical therapists within the military establishment.

Economic pressures continued, and by August 1938, there were only thirty-seven physical therapists in the Medical Department. They were assigned to five general and nine station hospitals in this country and to Sternberg General Hospital in the Philippines and Tripler General Hospital in Hawaii. This small group of experienced physical therapists constituted the nucleus around which the World War II expansion was developed.
HISTORY OF ARMY PHYSICAL THERAPISTS

Although the Surgeon General took no action to improve the salary and status of physical therapists, dietitians, and occupational therapists, there was interest in the situation in the Congress. In 1939, 1940, and early in 1941, the late Senator Morris Sheppard of Texas introduced legislation to provide a military status for these women. The Surgeon General did not approve of these bills, saying in effect that these women would only be required to go overseas in a wartime situation, and therefore, the protection afforded by the military status was not necessary. Yet, within a year after the last of these bills was introduced, dietitians and physical therapists were actually on duty in the United States that went overseas early in 1942. In all these efforts, Senator Sheppard had the strong support of Congressman Carl Vinson of Georgia, a long-time champion for an approved status for physical therapists. Even though these early legislative efforts failed, they served a useful purpose for, in the discussions of these bills, committee members became familiar with the duties and responsibilities of these women and were made aware of their lack of military status. These women continued to serve as civilian employees of the Army Medical Department. In this status, essentially the same as in World War I, they were subject to Army rules and regulations, yet they were not accorded the benefits or privileges enjoyed by the military personnel with whom they served.

When the President of the United States proclaimed a limited National Emergency on September 18, 1939, the Surgeon General and the Medical Department of the Army took stock of its resources and found that insofar as physical therapy was concerned, it was faced with four major problems: (1) the procurement of trained personnel in this field, (2) the procurement of trained physical therapists, (3) the lack of equipment and equipment lists, and (4) the lack of floor plans for physical therapy clinics.

The procurement of a sufficient number of physical therapists to meet the Army's needs in the event of war presented the biggest problem. The American Red Cross volunteered to extend the enlistment of therapists who would constitute an immediately available reserve to be called into service in the event of war. However, a survey revealed that the total number of physical therapists in the entire United States fell far short of meeting both the civilian and the military health needs of the Army. At that time, there were only fifteen approved civilian physical therapy courses, some of which were not operated even though only a few physical therapists were recruited through this program, the Red Cross effort publicized the acute shortage of such personnel in the United States and the need for accelerated training in this specialty. In this, as in future personnel crises, the American Physical Therapy Association gave its full support to the program by urging its members to cooperate in every way and by-publicizing the Army's needs in its journal.

WORLD WAR II

Personnel

This, then, was the gloomy physical therapy picture when the United States declared war on December 7, 1941. Truly, the procurement of physical therapists was the most pressing need as the Army was to be prepared to provide an adequate rehabilitation program for the wounded. But before recruitment could be initiated, it was necessary to establish a supervisory position in the Office of the Surgeon General. In the years between World War I and World War II, the Supervisor of Physical Therapy of the United States Army (this writer) had served as an adviser to the Surgeon General on matters pertaining to the training and assignment of physical therapists. This arrangement, however, was not adequate in a wartime situation. In January 1942, she was assigned to the Office of the Surgeon General on a part-time basis to organize a Physical Therapy Branch, and in August 1942 she was assigned on a full-time basis and designated as the Superintendent of Physical Therapists.

In mid-1942, when the entire staff of the Army became aware that dietitians and physical therapists were serving overseas as civilian employees in Army hospitals with virtually no protection under international law, that office requested that legislation be introduced in the Congress to authorize military status for all women in these categories. This was accomplished with the passage of the Public Law 82-129 on December 22, 1942. The military status was then applied only to physical therapists, for now they could be a part of the Army, not merely serving with it. The first milestone in the long struggle for military recognition had been passed. The first official act under Public Law 828 was the establishment of a military Physical Therapy Branch in the Office of the Surgeon General. On January 12, 1943, this writer, the first physical therapist commissioned under this law, was concurrently appointed in the grade of major and assigned as the first military Director of Physical Therapists, United States Army. Now the procurement of physical therapists could proceed on a military basis and recruitment through the U.S. Civil Service Commission and the American Red Cross was terminated.

Of the 354 civilian physical therapists on duty in Army hospitals prior to March 31, 1943, (the deadline date for the changeover from the civilian to the military status), 279 accepted commissions. The minimum educational qualification for appointment as a physical therapist, essentially the same as those established at the University of Wisconsin Medical Education and Hospitals, were completion of not less than two years in an approved college or university with emphasis in physical education or in the field of the biological sciences or graduation from an approved school of nursing, and, in addition, satisfactory completion of an approved physical therapy course. Applicants were also required to meet the physical, dependability, and age limitations as established by the Surgeon General.

In 1943, the procurement of dietitians and physical therapists was assumed by the Office of Procurement Service, Army Service Forces. While only 256 physical therapists were recruited through this program, this organization rendered an outstanding service through its well-planned nationwide publicity facilities. People throughout the country were mobilized in a term "physical therapists" and the need for this personnel in the Army. This publicity was directed not only to physical therapists but also to high school and college students, stressing the need for more participation in this specialty.

Training

In 1941, a Central Physical Therapy Board was established in the Office of the Surgeon General to work with the Subcommittee on Physical Therapy of the National Research Council and the Federal Security Agency on problems associated with the anticipated expansion of the program in military hospitals. In the meantime, a survey made by the Council on Medical Education and Hospitals revealed that some approved civilian physical therapy courses which required payment of tuition were experiencing great difficulty maintaining their full enrollment. To assist these schools in supporting full enrollment and thereby contributing to the procurement of physical therapists for the Army, it had been proposed several times that the War Department subsidize these courses. In view of the planned expansion of the Army physical therapy training program, it was the Surgeon General's opinion that such proposals could not be supported or justified.

In July 1941, the first Army Emergency Physical Therapy Training Course for civilian students was started at Walter Reed General Hospital. This course, which was conducted on a quarterly basis, consisted of six months of didactic instruction following by six months of supervised clinical experience, replaced the regular course. This plan was subsequently adopted by the Council on Medical Education and Hospitals, and at the same time, the Council conducted in a plan by which approved civilian physical therapy schools could conduct six months of didactic instruction which was to be followed by six months of supervised clinical experience in Army hospitals.

Briefly, it may be said that the Army Emergency Physical Therapy Training program conducted during World War II was directed to four different groups of students: (1) civilian students who took all their training in Army hospitals, (2) civilian students who took only the didactic phase of their training in the Army hospitals following completion of the six-months' didactic phase in civilian schools, (3) enlisted members of the Women's Army Corps who took all their training in Army hospitals, and (4) enlisted students who took only the didactic phase of their training in Army hospitals following completion of the six-months' didactic phase in one of the three civilian institutions (the D. T. Watson School of Physical Therapy, Lehigh, Pennsylvania; the School of Physical Therapy, University of Wisconsin, Madison, Wisconsin; and Stanford University, Palo Alto, California). In these institutions the didactic phase of the course as outlined by the Office of the Surgeon General was conducted under War Department contract for the 1943-1944 year.

In summary, during World War II, the Army conducted thirty-three emergency physical therapy courses for civilian students and twenty-eight courses for enlisted students in ten Army hospitals. These courses were conducted on the same plan as that authorized for
We are proud of the contribution made by Army physical therapists to patient care, which today is the best the Army has ever afforded its patients. We are proud, not only of our contribution to military medicine, but also that we have contributed in no small measure to civilian medicine and to the profession as a whole." 

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Walter Reed General Hospital in 1941, and all were approved by the Council on Medical Education and Hospitals. Fifteen civilian schools conducted thirty-eight courses of the six-months' didactic instruction, followed by six months of supervised clinical experience in Army hospitals.

The Army would not have been able to meet its requirement for physical therapists during World War II without this training program. Even though the instruction was greatly intensified and streamlined, high professional standards were always maintained. The outstanding performance by many of the graduates of the emergency courses clearly demonstrated that this program was an efficient and an expedient wartime training measure. Of the over 1,600 physical therapists appointed during the war, approximately 55 percent were graduates of these courses.

Professional Treatment in Hospitals in the United States. During World War II, there were four types of Army hospitals in the United States: general hospitals, which cared largely for patients evacuated from overseas; regional hospitals, for general medical and surgical patients referred from the military establishments in this country; station hospitals, which supported the troops at the training centers; and convalescent hospitals, which were established early in 1944. Ambulatory care patients who no longer required definitive treatment in general hospitals but were unable to return to duty, were transferred to convalescent hospitals where their physical therapy was continued while they participated in a strenuous physical reconditioning program. Thus a large number of general hospital beds were released for the increasing numbers of combat wounded being rapidly returned from overseas. On VJ Day in August 1945, there were sixty-six general, fifty-four regional, sixty-six station, and twenty-three convalescent hospitals, all of which required the services of physical therapists. In assigning such personnel, preference was given to general hospitals designated as specialized treatment centers and to persons who conducted physical therapy training courses.

As new general hospitals were activated, it became obvious that specialists to staff them were limited in number. The problem was solved by concentrating related specialties in one hospital and designating it a specialized treatment center. The extent of this program of special interest to physical therapists is indicated by the number of hospitals designated to provide such care: amputations, spinal centers; neurology and neurosurgery, nineteen; orthopedic surgery, thirty-five; thoracic surgery, five; vascular surgery, three; tresh foot, three; and many others. Concentrating patients in this manner was a definite advantage. Current treatment procedures were evaluated and as a result of research on a vast account of clinical material, new procedures were developed that insured a more effective approach to the rehabilitation of patients in these groups. Physical therapists assigned to these centers had an unusual opportunity to participate in this research, and in many instances made outstanding contributions.

A few of these programs will be briefly described.

Amputations. There were approximately 15,000 patients with major amputations during World War II, and of these approximately 20 percent developed one or more lower-extremity amputations. At one of the largest amputation centers, Walter Reed General Hospital, an outstanding program was developed. Various physical therapy procedures were employed to promote healing and shaping of the stump, and to strengthen muscles and overcome contractures. After the upper-extremity amputee was fitted with his prosthesis, he was referred to the occupational therapy clinic for instruction in the use of the appliance, while the fitted lower-extremity amputee reported to the physical therapy clinic for training. The prosthesis for the lower-extremity amputee was brought to the clinic by the prosthetist, and the patient was not permitted to take it to the ward until the physical therapist was assured that he would not damage his stump by prolonged walking or develop incorrect gait patterns.

Of prime importance in this program was the ability of the physical therapist to analyze the gait problem. She was required to identify the gait deviation and determine whether the cause was weak muscle, a painful stump, a contracture, or poor alignment of the prosthesis. Physical therapists found this a challenging assignment and many became proficient in gait analysis.

Periphereural Nerve Injuries. Of all extremity wounds incurred in combat, 15 percent were complicated with injury to one or more nerve trunks. A program for this group of patients was developed at Percy Jones General Hospital, Battle Creek, Michigan. The Army began in developing electrodiagnostic tests during World War I, and in the thirties much was done to standardize these tests both in civilian and military medicine. Early in World War II, the galvanic and faradic currents were used for most electrical tests. Later in the war, the Golbert-Fitzell Constant Current Stimulator was introduced, it replaced all others. This apparatus, known to most physical therapists simply as the EDX, was developed by scientists with the National Research Council at Northwestern University, Evanston, Illinois, and by neurosurgeons at Percy Jones General Hospital. Since it was manufactured commercially at that time, it was reproduced in the occupational therapy clinic at the hospital and distributed to all neurosurgical centers. Because of the large number of patients with peripheral nerve injuries, many physical therapists became expert in the field of muscle testing and thereby acquired an acute awareness to all types of nerve-muscle dysfunction.

Spinal Cord Injuries. The management of patients with spinal cord injuries in World War I and early in World War II met with extremely discouraging results. After a series of conferences on the subject of these disorders, an entirely new approach to the many problems was developed and put into effect in all neurological centers. Basically, this program, an outstanding success, involved the team approach, combining the skills of all hospital personnel concerned with the treatment of this group of patients. The physical therapy program emphasized exercise for the patient, first as a bed patient, then in the wheel chair, progressing to mat exercises on the floor. The final step, ambulation with braces and crutches, was achieved by approximately 70 percent of the patients. After an extremely arduous convalescence, many paraplegic patients could drive their own hand-controlled automobiles, thus achieving a measure of independence heretofore considered unrealistic—a marked contrast to the results in World War I.

Thoracic Injuries. The largest hospital designated for the specialized treatment of patients with thoracic injuries was Flanagans General Hospital, Denver, Colorado, where some 2,000 such patients were treated. In this hospital an outstanding physical therapy program, borrowed in part from the British concept, was developed. An active gymnasium, largely of instruction in posture and breathing exercises, was divided into three parts: preoperative, on the hospital ward; postoperative on the hospital ward; and later in the physical therapy clinic and reconditioning gymnasium. Ninety per cent of these patients received physical therapy, and many made spectacular recoveries. This was in marked contrast to World War I, when the patient with a thoracic injury was usually a "chest cripple" with marked deformity, weakness and deformity on the affected side, and general muscular weakness.

Treatmet Overseas. During World War II, physical therapists were on duty overseas in every theater of operations, assigned to 219 general, 101 station, and four convalescent hospitals. On VE Day in May 1945, approximately 570 physical therapists were serving overseas. One year later this number was reduced to seventy. In addition to hospital assignments, for a short period of time, three physical therapists were assigned to ships. Because administering treatment on a crowded hospital ship proved ineffective, the program was discontinued.
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Overseas hospitals were set up in any building which afforded adequate space, such as schools, warehouses, apartment houses, hotels, military barracks, churches, and even former stables. Some were in newly constructed cantonment-type buildings and some in Nissen huts or tents. In the tropical areas, native construction materials such as bamboo and grass were often used to build thatched roofed huts. Physical therapy clinics were as varied in space and arrangement as the hospitals of which they were a part.

The fundamental aim of physical therapy was the same as in the United States, except that there were no long-range programs. This was because an established policy required that any patient who could not be returned to duty within 120 days be evacuated to the United States. Although scattered from India to Italy, there were many common problems. Physical therapy programs were often curtailed by limited supplies of hot water for whirlpool baths. In some hospitals, water for this purpose was heated on field ranges or improvised stoves and carried to the clinic in large containers. The lack of dependable electrical current was also a common problem. Since no hospital had a generator, the equipment was sent to any of the theaters of operation, physical therapists and their enlisted assistants were ingenious in improvising equipment which served the purpose well.

In the frequent moving of hospitals, necessitated by the military situation, physical therapists had ample opportunity in setting up their clinic. The equipment and supplies were usually in short supply; physical therapists often temporarily assured the roles of painter, plumber, carpenter, or electrician. Surprisingly, some had the foresight to include a complete tool kit in their personal luggage. In spite of the many handicaps, the clinics were usually attractive and cheerful.

The sudden change in the function of the hospital was suddenly changed. At times convoys of battle casualties, received in a hospital on short notice, momentarily changed a general hospital into an evacuation unit. At such times, all hospital personnel, regardless of their specialty, expended every effort to prepare for the immediate reception and care of these patients. Physical therapists served wherever they were needed and, as soon as possible, they instructed patients in exercise to prevent deformity and muscular weakness before the patients' transfer to another hospital in the chain of evacuation.

With the varying patient loads, physical therapy procedures were constantly re-evaluated and changed to meet the military situation. Massage and various forms of heat treatments succumbed to only a period of exercise. For bed patients this was done on an individual basis. As work loads assumed staggering proportions, classes were often formed for exercise instruction for groups of ambulatory patients with similar disabilities. However, group exercise was not a new concept during World War II. A photograph of Miss McMillan taken at Walter Reed General Hospital during World War I shows her apparently giving instruction in self-massage and foot exercises to a group of patients seated on the floor around her.

At one of the general hospitals in England, a physical therapist developed a general exercise program designed to maintain total body strength to the extent possible while the injured extremity was undergoing specific treatment. This was patterned after the long-established British Army Rehabilitation Program. In developing this concept, British Army medical officers gave generously of their time and talent. Later this program was incorporated into the over-all rehabilitation program for patients in the European Theater of Operations. There can be no doubt but that the success of this program played an important role in the Surgeon General's decision to establish a general exercise program which later came to be known as physical reconstruction.

Early in the war, many hospital units went overseas without physical therapists, but as soon as the Army physical therapy training program became more productive, these personnel were supplied. In the interim, some hospitals in Hawaii, Australia, and England employed local physical therapists to bridge the gap. The British physical therapists invited the U.S. Army physical therapists assigned to hospitals in England to attend a meeting of the Chautauqua Society of Physical Therapy in London, at which the management of patients with post-surgical chest conditions was discussed. Speaking at this meeting was Olive Sands, a member of the Society, who had made arrangements for it, she said she believed that the seed which had been sown in the World Confederation for Physical Therapy was planted at this time.

POST-WORLD WAR II TO THE PRESENT TIME

Shortly after the termination of World War II, the Surgeon General of the Army, then Major General Norman T. Kirk, recommended that legislation be initiated to authorize a Regular Army status for nurses, dietitians, physical therapists, and occupational therapists. He said, in effect, that by their contribution to patient care in Army hospitals during World War II and through World War II these women had earned the right to be a part of the Regular Army, and that militarization of these personnel was essential to the continuance of such care. The bill to accomplish this was passed as Public Law 36 on April 17, 1947. Another milestone for physical therapists had been passed, giving permanent military recognition at long last to thirty years of professional service in the Army. This bill also established the Women's Medical Specialist Corps consisting of a dietitian, a physical therapist, and an occupational therapist section, each to be headed by an officer in the grade of Lieutenant Colonel. The bill also authorized a Women's Medical Specialist Corps Section of the Army Nurses' Reserve Corps.

It was my honor and privilege to be the first physical therapist commissioned in the Regular Army and the first Chief of the Physical Therapist Section of the Corps under this law, and later to be selected as the first Chief of the Corps in the grade of Colonel. After the provisions of this law had been in operation for several years it became obvious that there were inequities concerning appointment, promotion, and retirement pertaining to both the Regular and Reserve components of the Corps. Corrections were subsequently accomplished by several legislative actions. The law was further amended in 1955 to change the name of the Corps to Army Medical Specialist Corps and to authorize commissions for male physical therapists in the Reserve status, and in 1966 to authorize Regular Army commissions for these men.

Even though there was a surplus of physical therapists in 1946, accelerated separation policies established by the War Department enabled them to leave the service so rapidly, that by mid-1947 it was necessary to initiate procurement of these personnel again to meet the peacetime requirement. Subsequent losses also resulted from the termination of the Army of the United States status in June 1948, when physical therapists could either accept commissions in the Reserve status or be separated from the service. More losses followed in 1949 because of transfers to the newly established separate medical service for the Air Force.

To offset these losses, the Army Physical Therapy Course was reactivated in the fall of 1948 at the Medical Field Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, where the course has been conducted since. The educational prerequisite for this course was a degree from an accredited college or university, with a major in physical education or in the biological sciences. Beginning in 1954, this requirement was liberalized to include other colleges. The course was completed a specified number of hours in the physical and biological sciences and psychology.

"Your dedication to the principles of professional excellence continues to be a source of great pride to me. Your selfless devotion to patient care and constant concern for the individual increases your prestige among members of the Army Medical Service."

—LT. GEN. LEONARD D. HEATON, Surgeon General of the U.S. Army.
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For the purpose of attending this course, students were commissioned as Second Lieutenants in the Officers' Reserve Corps, a provision which, until the passage of Public Law 36, the Career Management Program, was still nonexistent. Before beginning their physical therapy training, students were required to complete the Medical Department Officers' Course to orient them to military life.

The course was planned on a twelve-month basis, with Phase I—demonstrating the course—conducted at the Medical Field Service School, followed by Phase II—continued instruction and supervised clinical practice—in three general Army hospitals. In 1945, these phases were eliminated and the clinical and didactic portions were integrated. Thus it is a one-phase course, all conducted at the Medical Field Service School and Brooke General Hospital, both of which are part of the Brooke Army Medical Center. Although this change has been in effect only a short time, it appears to have strengthened the program.

Since 1945, physical therapists assigned as directors of this course have had Master's degrees. Since 1959, all physical therapy instructors also hold advanced degrees, the majority of whom in addition, have had previous teaching experience. The course, approved by the Council on Medical Education and Hospitals of the American Medical Association in 1949, continues to be highly regarded.

To interest potential students in this course, a new program, the Summer Practicum, was started in 1963. In this program, small groups of college students spend three weeks in selected Army general hospitals, observing and assisting in the physical therapy clinic. This approach has proved to be an excellent means of measuring interest in the field, as well as providing an opportunity for early exposure to the profession.

One of the first programs developed for Army Medical Specialist Corps officers after the passage of Public Law 36 was the Career Management Program. An important provision of this program permits graduate study in a civilian institution for selected outstanding officers. Within budget limitations, usually two physical therapists have attended such institutions annually for the purpose of attaining a Master's degree in a medical field related to physical therapy. Currently, three physical therapists are engaged in graduate study courses, and this year for the first time, one is pursuing study toward her doctorate in pediatrics. In addition to graduate courses, authority was also established for the participation in a number of short courses in both civilian (some of which are not funded) and military institutions, ranging from one week to six months in length. Among the military courses are the "Advanced Anatomy Course" which began in 1961, and courses in "The Management of Mass Casualties," "Personnel Management," and "Administration." Participation in the Career Management Program has raised the educational level of Army physical therapists as a group to an all-time high. Today, most of the key positions are held by persons with advanced degrees.

Present time was short-lived. In 1950, routine programs were interrupted by hostilities in Korea. Additional physical therapists were needed in Korea and Japan as well as in the United States. It was first thought that all physical therapist needs would be met by the voluntary return to active duty of officers in the Reserve status. However, the situation was changing; the number of officers in the Reserve status had been reduced, and many had established civilian positions. To meet the Army’s needs, for the first time, an involuntary recall to active duty of Reserve officers was authorized and continued as long as necessary. Generally speaking, the types of combat injuries incurred in Korea were the same as during World War II: amputations, spinal cord and peripheral nerve injuries, and thoracic and cardiac injuries. With some modification, the physical therapy programs were similar to those developed during World War II.

At the time of preparing this lecture, there were 200 physical therapists assisted by well-trained enlisted personnel on duty in Army hospitals both in this country and overseas. In the United States, they are assigned to seven general, and many return to their pre-service military duty. Overseas, they are assigned to Army hospitals in Germany, Korea, Okinawa, Japan, Okinawa, Alaska, and Vietnam.

Currently, the Army physical therapists are assigned to field and evacuation hospitals in Vietnam. This is the first time physical therapists have been assigned to front-line hospitals. Here they are demonstrating the value of early intervention in military hospitals. In Vietnam, they are assisting in the evaluation of patients with major injuries. Patients with minor injuries who can be returned to duty in a relatively short period of time are treated in Army hospitals in Vietnam and Japan. Those with major injuries are evacuated by air to hospitals in Japan and Hawaii, en route to Army hospitals in the United States. With the early evacuation of the wounded from the battlefield by helicopter and the advanced medical and surgical techniques administered in the front-line hospitals in Vietnam, physical therapists assigned to Army hospitals in this country are being challenged as never before, treating patients with multiple major injuries, many of whom might not have survived in previous wars. With the exception of cold injuries, the types of combat injuries incurred in Vietnam are the same as in previous wars.

Physical therapists are also assigned to such projects as the Army Research Unit for the specialized treatment of patients suffering from extensive burns, located at Brooke General Hospital; and the Walter Reed Army Institute of Research, Washington, D.C. U.S. Army physical therapists are also making continuing contributions to the profession through research by conducting clinical research in Army hospitals and by frequently reporting their studies in professional journals.

Today the professional status of physical therapists is at its highest level in Army medical history. They have demonstrated that they are qualified as physical therapists and Regular Army officers to hold positions of responsibility where their professional and administrative judgment is accepted without question. On the occasion of the twentieth anniversary of the establishment of the Army Medical Specialist Corps on April 17, 1967, Lt. Gen. Leonard D. Heaton, the present Surgeon General of the Army, said, "Your dedication to the principles of professional excellence continues to be a source of great pride to me. Your selfless devotion to patient care and constant concern for the individual, increases your prestige among members of the Army Medical Service."

CONCLUSION

We, too, are proud of the contribution made by Army physical therapists to patient care, which today is the best the Army has ever afforded its patients. We are proud not only of our contribution to medical science, but also that we have contributed in no small measure to civilian medicine and to the profession as a whole. Mary McMillen often referred to her first few months at Walter Reed General Hospital in 1918, as being devoted to "selling" physical therapy and herself to the Army Medical Service. Army physical therapy has come a long way since then. If she were here today in our anniversary year, and could see the advances that have been made in the program, and observe the responsible positions held by physical therapists on the hospital team and in the over-all Army Medical Department structure. I think that she, too, would be very proud of the achievements.

The high standard of Army physical therapy today would not have been achieved without the dedicated support of many loyal and dedicated physical therapists.

NOTES

1. At various times, Army physical therapists have been designated as "Rehabilitation Aides" and as "Physiotherapy Aides." For the purpose of this lecture, the currently used term "physical therapist" has been used throughout.

2. Information contained in this lecture that pertains to the years prior to 1950 has been extracted from the history of the Army Specialist Corps, United States Army (unpublished manuscript) on file in the Historical Section, Army Medical Specialist Corps, Office of Surgeon General, United States Army.

3. Information that pertains to the period from 1950 to the present time has been supplied by the Physical Therapy Section, Army Medical Specialist Corps, Office of Surgeon General, United States Army.

REFERENCE

The Fifth Mary McMillan Lecture
presented
July 5, 1968
Chicago, Illinois
by
Helen L. Kaiser, PT

Helen Kaiser was the fifth recipient of the Mary McMillan Lecture Award in 1968. She was graduated from the Sargent College of Physical Education and the Harvard Medical School physical therapy program. She was a past President and Director of the American Physical Therapy Association. She was one of the organizers of the Michigan Chapter and a president of the Ohio Chapter. Ms. Kaiser served on the APTA Education Committee. She received the Humanitarian Award from Sargent College and the Golden Crutch Award from Duke University. Ms. Kaiser served on the faculty at Duke University for many years.
Today's Tomorrow

Next month, Robert Bartlen will present the Eighty-Fifth Mary McMillan Lecture in Boston, Mass., at the American Physical Therapy Association's (APTA) Fifty-Sixth Annual Conference. The Journal, as is its custom, will publish the text of this lecture in the November issue following the 1991 Annual Conference. The 1968 Mary McMillan Lecture by Helen Kaiser, however, was a notable exception to that custom. The text of the Fifteenth Mary McMillan Lecture was misplaced when the APTA moved its headquarters from New York to Washington, D.C. The text was recently recovered when old records were being placed in the Association's archives.

We are printing the 1968 McMillan Lecture in this issue of the Journal for two reasons. First, we wish to have Ms. Kaiser's speech available to future generations of physical therapy practitioners. Second, her talk still has remarkable relevance and offers a fascinating historical perspective on our profession. Although the speech was given nearly 23 years ago, the text of the speech provides considerable insight into contemporary issues. I urge a careful reading of Ms. Kaiser's speech, asking that special attention be paid to her points about interdisciplinary relations and to her concerns about faculty shortages and her warnings about the development of new physical therapy programs in inappropriate settings.

These messages are as relevant today as they were when they were spoken in 1968. How ironic that some of the issues that troubled Helen Kaiser persist to haunt us today. None, however, that when Helen Kaiser gave her speech, we were in the midst of the Vietnam War and Richard Nixon was 4 months away from being elected to the presidency. Most physical therapy students today were not even born when Helen Kaiser spoke at the Palmer House in Chicago.

Helen Kaiser, who died in September 1988, did not live to see widespread direct access or other recent events in physical therapy. But, after reading her words, you can have no doubt that if she were with us today she would be asking us to look carefully at ourselves and to get on with the business of moving forward. Helen Kaiser begins her speech by noting the importance of history and historical perspectives. The Journal apologizes for not publishing Helen Kaiser's speech in a more timely fashion, but also takes pride in rediscovering the words of one of our pioneers. In sharing these words with our readers, we also thank Helen Kaiser—not just for her wonderful message and her remarkable insight, but also for a lifetime of contributions to our profession.

Julie M. Koststein, PhD, PT
Editor

...It is said of the American Indian that, when traveling in strange territory, he frequently looked back to see from whence he had come. He thus could recognize familiar landmarks on the return journey and consequently never lost his way. The white man, on the other hand, was so eager to reach his destination that he only looked ahead, failed to notice that which was not in his direct path, and, therefore, unlike the Indian, always became lost.

We know that many of our American presidents have been avid students of history. Was this because they sought to search the past in order to lend credence to the present or hopefully to find in the past a path to the future? Whatever the reason, there may be some precepts to be gleaned from these two examples that, if applied to the present dilemma of our profession, might help us to make wise decisions for the future of physical therapy.
Every profession is to some degree surrounded by a zone of ambiguity. The trouble with this zone of ambiguity is not that it is a man's land but that at times to be an every-man's land. And sometimes this leads to unbridgeable war between the adjacent occupations.

Seldom does one hear any mention of the competence or academic preparation required to perform effectively the old work so possessively guarded or so zealously and earnestly pursued. The tendency is rather to stake out a claim, based not so much on merit as on desire, in hopes that a declaration of intent, or "squireaner's rights," will convince others after sufficient repetition, elapse of time, or by sheer weight of numbers that the unperemptory right and that the original protagonist had no business there in the first place.

This type of myopia is not as uncommon as one would like to see. A very substantial number of health disciplines are so afflicted. As one goes on the list of these professions, one finds: limnology—only variations in the intensity of the affliction. Each is more than likely to consider his profession to be the one most commonly misunderstood. In fact, sometimes it appears that all the health professions suffer from a special and similar type of paranoia. This quite naturally increases the complexity and magnitude of the problem. The very commercialism of the virus would suggest that only in commerciality might a remedy be found. To this speaker's knowledge, no such attempt has been made. But neither has such an admission been made. The climate today is that of a cold war in which the struggle is for position and power, with little regard for the victimized population and its needs, or more appropriately the patient and his needs.

A more reasonable approach than the aforementioned tacts might be to hold a sort of Geneva peace conference of the health professions, with equal representation of those involved and responsible for patient care, namely, physicians, nurses, physical therapists, occupational therapists, dietitians, and social workers—in other words, all those whose work is interrelated in patient care, and who comprise the gray area that surrounds the "adjacent health professions," as Merton called them. There of course are additional groups polarized by common purpose and aspects of patient care. However, our focus today is on those previously mentioned. It must appear obvious that quality in patient care can only be achieved if these groups communicate and cluster appropriately as a patient moves from the community to the hospital and hopefully back to the community again. One learns of planning conferences held by physicians and administrators, with or without nurses present. Sometimes a dietitian is included, but how often does one hear of the other professions participating in these conferences? It is not of the so-called "team approach" to individual patient care, but rather of institutional programming. Yet the inclusion of a physical therapist, an occupational therapist, and a social worker in these planning conferences frequently could change the complexion of the hospital census, the home care plan, and furniture design, as well as the patient's outlook, to say nothing of his progress. One is reminded of a sentence in Count de Two's Planning of Change: "As our feet tread the earth of a new world our heels continue to dwell in the past."

We seem reluctant to give up old patterns of operation. Are we unable or unwilling to do so? Do we feel threatened, unsure, compliant, or only possessive? Great efforts have been made in some medical centers to introduce and use new technology in patient diagnosis and treatment. But very little is heard as to how these efforts can be expected to affect the patient except to increase the numbers of patients "processed" without the use of professional staff whose time is so valuable and in such short supply. Yet we know that 85% of the patients occupying today's hospital beds have an emotional component to their illness. For, even though the computer has not yet solved nor has the evolution of personnel alleviated. In fact, both usually compound the problem. Thus, we have great advances in technology, but we have not yet learned how to integrate them into the system.

If proliferation, concentration, and governmental support for education in order to increase the number of health care personnel do not provide the answers to today's health problems, then what does one do? Perhaps the conference table would offer a hope for a solution if we approached it determined to come up with a new old idea of yesterday's patient care concept (Webster, you will recall defines "dodo" as a heavy, flightless, extinct bird) and together make an effort to reshape the demised carcass into a streamlined, multipurpose creature able to operate sensibly, and gracefully, to a variety of demands. Or is it too much like saying, in today's materialistic and pragmatic world, something as hopelessly naive as perhaps "virtue is its own reward?"

Who knows, we shall risk it and make the suggestion. For this might well lead to new names for old professions or old names for new professions. The very least we might learn would be what is packaged under the old label. One dividend might be the joint planning of educational programs in addition to operational blueprints that are more consistent with present and future health needs than those currently undergoing isolated restructuring, or others being spawned because of the availability of federal funds.

Having taken an all-too-brief look and made unquestionably some much-too-simple explanations and deductions concerning today's health problems, let us move on to those directly related to physical therapy. Perhaps if we put our house in order, sharpen our tools, and bring ourselves up to date in the anatomy of that old dodger, we could do a better job where it comes to curing the carrots. Let us begin by taking a look at our educational preparation. This is especially timely because of the recent appearance of the physical therapy assistant. Thus, it is for several reasons important that we critically review the academic preparation of the professional physical therapist. It behoves us to provide undergraduate education of such quality and diversity that our students can move smoothly into graduate school for additional specialization. Perhaps, we would do well to follow the example of many professions such as law, engineering, forestry, business administration, and social work, which have discovered that for the graduates to practice effectively in today's complex world, a good liberal arts education is neither dispensable nor essential. Therefore, the professional education for these professions has moved to the graduate level. Since the present professional physical therapy programs can absorb no more courses, yet our patients' needs are background in the social sciences and the humanities
... are we willing to admit that, although the preparation many of us has served us well, it may not be as relevant as it once was with today's problems and certainly not tomorrow's if one were setting forth without a backlog of experience.

if in the future they are to be effective practitioners of their art. Should we, therefore, not give serious consideration to setting more of our basic programs to the graduate level? Or shall we be content with the status quo and remain among the more poorly prepared of those who call themselves professionals? At this juncture, we do not know the numbers! Well, there is any guarantee that, if the intellectual fare and the rewards are sufficiently attractive, one will not have as many students capable of graduate education as one has had in baccalaureate programs? One thing is certain, having made a greater investment in his future, the graduate student is more likely to stay with his profession than is a student who has invested much less.

There is a bit of our history that might be well for us to remember at this point. Could we then see how our profession evolved from the demand for physical therapy services in World War I, which at that time had perhaps a couple of years' duration were organized to meet these needs. What has happened since then is that the professional has grown in number, it is that the young women who responded to the call for volunteers at that time were, for the most part, college graduates. In those days, a college education for women was far less common. It is not until after World War II that men began to enter our ranks in any great numbers. Thus, at the time of World War I, a group of women entered our profession. Their average was above average in initiative and well motivated according to the standards of their day and whose inclination and tradition were to work with the less fortunate. These pioneers not only responded to the needs of World War I, but continued afterward to work with the ever-increasing number of polio victims. It is to these women who should be given credit for setting the tone of our profession. (Those of you who are fortunate enough to have known Mary McMillan and Clara Merrill—our first president and secretary, respectively—will know the kind of women of whom I speak.)

With a great civil need for physical therapists created by the ever-mounting number of patients with polio victims in the twenties, thirties and physical education courses for civilians in the United States. The early efforts of our profession have been well documented by Mildred Elson in the First Mary McMillan Lecture, so there is no need to repeat them here. However, let us review some additional factors that have influenced our educational patterns, both past and present, and discuss how these factors are likely to affect the future of our profession. What should we expect of our educational programs in preparation for tomorrow? Are there any other factors to consider? Undoubtedly, there is some evidence that, if correctly assessed, will help us to determine our future role among the health care professions. Shakespeare reminds us that a 'scape in the affairs of men, which, taken at the flood, leads on to fortune, omitted, all the voyage of their life is bound in shallows and in miseries.' But before we explore new educational patterns that are being suggested, are we willing to admit that, although the preparation many of us has served us well, it may not be as relevant as it once was with today's problems and certainly not tomorrow's if one were setting forth without a backlog of experience?...
degree programs. Politics and money, it safely be said, sometimes make strange bedfellows. Some of these programs clearly belong in the community college category. However, the fact that medicine and nursing are not included should give us pause. Without these professions, one is inclined to view the alliance possibly as a little more unhealthy than holy. Should we not ask ourselves why these programs are not included? Is it not only of interest but of concern to note that, in approximately 80% of the programs receiving governmental support for the allied health professions, a pathologist is listed as director. Are these new schools under the aegis of the medical schools? It causes one to wonder if some of our present programs of health sciences are truly a part of the university or related to it only by some administrative pattern of convenience?

Establishing a new school of the health professions or reorganizing existing programs by no means rules out high-quality education, but, under the present circumstances, numerous questions do come to mind regarding the nature of the school within the academic structure of the university or college. What are the admission criteria? Who approves the budgets for each program? How is the money allocated? Who approves the courses? Who determines the number and size of the classes? How is the medical student trained in medical education? What are the qualifications of the educational administrator? How do the programs relate to the university as a whole? Do they give appropriate care to the patients? What is the relationship between the patients and the university? What is the relationship between the patients and the hospital? How are the patients treated? What are the qualifications of the personnel? What are the qualifications of the personnel who treat the patients? What are the qualifications of the personnel who train the personnel who treat the patients?

All these and many more questions come to mind as one views the scramble for government funds, in many instances without the proper programs or even the knowledge of some of the disciplines involved. And if the health professions are to be strengthened, why are medicine and nursing not included? I pointed out previously that our program brings us together with physicians, nurses, occupational therapists, and social workers. Yet, in many of these schools, a ray of medical technology, cytologists, record librarians, assistants, and denticere personnel are being gathered together with occupational therapists and physical therapists without the participation of physicians and nurses. How, then, shall we learn to work together? Why are programs being organized in this fashion? If educational programs are truly professional and we are allied in serving the patient, then a college of allied health professions including medicine and nursing is appropriate. However, until such time as this occurs and personally I am not very optimistic that it will come in the very near future, but, until it occurs, we need to guard against compromises in education that will jeopardize the quality of our product, but against those self-appointed guardians of our future. You will recall the old adage "Beware of Greeks bearing gifts." Let us take heed. It has taken us 35 years to free ourselves of the offers of the programs so we have priorly so gravitated to accept.

Having reviewed our education, past and present, and raised some questions about its future, let us turn to the administration and practice of our profession. The first physical therapist practices worked mainly with orthopedes. This continued to be the pattern until the mid-thirties, when physical therapists persuaded the orthopedes that perhaps these physical therapists could not really do an accurate muscle test. When asked if they had checked the patients with the "test" they had used, the reply was, "Well, no, they had not," and thus there began in the thirties the change in the administration patterns of physical therapy departments. True to our Army heritage, we received the title of "Chief Physical Therapy"

...we need to guard not only against compromises in education that will jeopardize the quality of our product, but against those self-appointed guardians of our future.

Then came World War II, which provided for physical medicine the source of acceleration orthopedics received during World War I. About this time, the orthopedist began to re-examine his abilities, for his ideas of rehabilitation did not always coincide with the philosophy of physical medicine. The improved front-line management of casualties in World War II permitted many victims of spinal cord trauma to survive. The complexity of management of these cases created the idea of the team approach, and thus began the development of the departments of physical medicine and rehabilitation. Staff were recruited from the various disciplines but were responsible to the director of physical therapy for the success of the program. The unfortunate part of this approach was that, although it may have been good for the patients with spinal cord lesions, when adapted to the patients of other specialties, the team members believe that they need not need and therefore wanted to be in direct contact with the patients and their physicians. This opportunity was frequently denied them, and, as a result of this, the physical therapists were not as closely related to the physician in patient care as are the nurse, the dietician, or the pharmacist. Yet, has anyone ever heard of a medical director for these departments? Why, then, physical therapy? Our Code of Ethics requires that patients be accepted only on a referral basis. Let us hope that our physical therapy administration is not as closely related to the physician as is the nurse, the dietician, and the pharmacist. But let us hope that our physical therapy department is not as closely related to the physician as is the nurse, the dietician, and the pharmacist.

Today, there is scarcely a service that does not utilize physical therapy. Physical therapy is established as a part of every branch of medicine. Why, then, should physical therapy be under the management of any one medical specialty? A physical therapy department should be free to cooperate with all medical and surgical specialties, with x-ray department, and with laboratories. They need not and therefore want to be in direct contact with the physician in patient care as are the nurse, the dietician, or the pharmacist. But let us hope that our physical therapy administration is not as closely related to the physician as is the nurse, the dietician, and the pharmacist. But let us hope that our physical therapy department is not as closely related to the physician as is the nurse, the dietician, and the pharmacist. But let us hope that our physical therapy department is not as closely related to the physician as is the nurse, the dietician, and the pharmacist. But let us hope that our physical therapy department is not as closely related to the physician as is the nurse, the dietician, and the pharmacist.

Helen Louisa Kaiser (1900–1988)

Helen Kaiser was born in Michigan, was educated at Mercy College of Missouri, and received her certificate in physical therapy from Springfield College in 1923. She also earned a BS from Harvard University. In 1939, she earned her MS in education from the University of Pennsylvania in physical therapy education program. She was Professor and Director of Physical Therapy at Duke University until her retirement in 1979. In 1959, Ms. Kaiser was selected to establish a physical therapy school in Greece for the United Nations Relief and Rehabilitation Agency (UNRRA), and she served as Director of Rehabilitation Services for the UNRRA and as Director of the Nepal Foundation of the Red Cross. In Greece, she opened the first physical therapy school.

In addition to her many academic achievements, Ms. Kaiser was a member of various professional associations and was an active leader in professional organizations at the state and national levels. She served as President of the American Physical Therapy Association (APT) from 1958 to 1950 and was a member of the APTA Board of Directors. She served as the President of the APTA, and was a member of the Board of Directors of the North Carolina Physical Therapy Association, member of the Council of Physical Therapy School Directors, Chair, the Organizing Committee of the APTA Section for Education, and Co-Chair, the Council of Physical Therapy Education.

Ms. Kaiser received numerous awards for her contributions to the profession of physical therapy. In 1998, she was selected to deliver the closing keynote address at the American Physical Therapy Association Annual Conference in Atlanta.

Ms. Kaiser died on September 8, 1998, at Duke University Medical Center, the hospital affiliated with the university to which she had devoted so much of her professional life.
the health care team. Unless this comes to pass, and until it does, we cannot hope to improve the quality of care for our patients.

It will require hard work, courage, imagination, perspective, and the ability to communicate knowledgeably, on the part of every physical therapy school director, physical therapy department head, and physical therapist, if we are to ensure a high quality of patient care in the community. We shall need to chart new courses and explore new ways. But this cannot be done in isolation, nor can it be done for us. We must make our plans together with other health care disciplines. Otherwise, collision, duplication, and rejection are inevitable. No culture has ever flourished in isolation. Its maximum contributions are only developed in concert with others. "Prehealth" must replace "pre-

medical" in the education of the health professions, and "community health" must be substituted for "public health" in the delivery of health services. Students in the health professions must come together with students in the humanities and social sciences in common courses. Common courses in the professional phase are relatively few, but contact in the preprofessional phase leads to better understanding and appreciation of the various roles and how they function in today's society.

It is true that these are "times that try men's souls." Frustrations are the order of the day. However, if we, like the Indians, will take a backward look occasionally and recall that the patient is our focus, the path before us to the new frontiers of health care can be an exciting and challenging journey. It will have its pitfalls and misleading byways, for there will be a lack of guidance, but, as is the case with all provident travelers, it is the preparation for the journey, the courage, and the effort that will determine the survival.

And, so, I wish you Godspeed on your journey.

I would like to hop a ride!

Thank you for permitting me to be your Fifth Mary McMillan Lecturer. It has been a great privilege.

References
2. Curtis CB. The Planning of Change

Margaret Rood was the sixth recipient of the Mary McMillan Lecture Award in 1969. She was graduated from Downer College in occupational therapy and received her physical therapy certificate from Stanford University. She made numerous contributions to physical therapy, particularly in the area of education. Unfortunately, Ms. Rood's lecture, entitled "Stereotyped or Integrated Response," was never submitted for publication.
The Seventh Mary McMillan Lecture
presented
July 2, 1971
Boston, Massachusetts
by
Lucy Blair, MA, PT

Lucy Blair was the seventh recipient of the Mary McMillan Lecture Award in 1971. She received her physical therapy degree from the Harvard Medical School for Graduates, and received her master’s degree from Columbia University. Ms. Blair served as Executive Director of the American Physical Therapy Association from 1961 until 1971. She served as a WAVE Lieutenant in the US Navy during World War II. Ms. Blair was a pioneer in the public testing of the Salk vaccine for poliomyelitis.
Seventh Mary McMillan Lecture

Past Experiences

Project Future Responsibilities

LUCY BLAIR, M.A.

The fiftieth anniversary of the founding of the American Physical Therapy Association has been celebrated this week and appropriately the festivities have been held in Boston, the location of the first formal business meeting of the newly organized Association. Sixty-three individuals attended that first meeting—a remarkable record when one considers the size of the membership a half century ago and the methods of transportation of that period.

This work has been a time for looking back and remembering when—time for making some comparisons between then and now. A sense of history and an appreciation of why things happened can provide a perspective in understanding the present and projecting the future.

THE EARLY YEARS

When the American Physical Therapy Association was founded in 1921 with 274 charter members, it was not the first organization of physical therapists in the world. Other organized groups had been in existence in Europe for some years, and an organization had been founded in Canada a year before the birth of the American Physical Therapy Association.

Although physical therapy seems to be a product of the twentieth century, it had its roots in the preceding century. Posture and scoliosis clinics had already been established in several parts of the country with the assistance of personnel from schools of physical education. Epidemics of infantile paralysis had already been identified, particularly in the New England area. After-care services came under the purview of orthopedic surgeons because of the need for corrective surgery. Dr. Robert Lovett, an orthopedist at the Children's Hospital in Boston, had recognized muscle movement and manipulation as an essential part of these after-care services.

At the turn of the century, Wilhelmine Wright, who worked with Dr. Lovett, was...
"A sense of history and an appreciation of why things happened can provide a perspective in understanding the present and in projecting the future."

assigned to a gymnasium for corrective work with children. She recognized the complexity of muscle function, particularly where weakness was involved. The fruits of her observation and study were published in the book entitled Muscle Function. In 1912, Janet Merrill, a recent graduate in physical education from Dr. Sargent's School for Girls, joined Dr. Lovett's staff and eventually developed a system for treating muscle ability and a muscle reeducation program. In 1916, the country was raged by a poliomyelitis epidemic. Miss Wright and Miss Merrill were sent to Vermont to establish what would today be called a home care program. They amassed muscle weakness and taught parents and others to carry on an exercise program.

Similar programs were established in New York, the Great Lakes area, and the western states. Selected public health nurses were given instruction in movement of body parts and restorative procedures which were carried out in the patient's own home. Individuals with backgrounds in physical education were pressed into action to assist orthopedists in the corrective work.

As demands for individuals schooled in remedial activities were increasing, World War I had an additional impact on our medical and health services as well as our social structure. The individuals who were responsible for organizing courses in the principles and practice of physical fitness and the preparation of Reconditioning Aides to assist in the rehabilitation of the war-injured are well known to us—Dr. Goldthwait, Dr. Granger, Margaret Sanderson, and Mary McMillan. The contributions of the Reconditioning Aides has been documented in the annals of military history.

The efforts of the American Physical Therapy Association in founding the American Physical Therapy Association in "order to retain the bond of friendship among them and to be a force in maintaining standards" has been well described by Idas May Hazeley in "History of the American Physical Therapy Association" written during our twenty-fiftieth year in 1946, and by Gertrude Bead in "Foundations for Growth," a review of the fourty years, both articles having been published subsequently in our Journal. In reordering these two historical documents which represent monumental tasks of reviewing and reporting events in the life of the Association, one is impressed with the kinds of problems, not too dissimilar from today, that were perplexing in those early years.

Mary McMillan, our first president, stated repeatedly that physical therapy would only be accomplished by excellence of performance in bringing comfort to the patient and improvement in his ability to function. Her high standards were reflected in her correspondence, in her speeches, and in her performance. The early members of the American Physical Therapy Association were indeed concerned with excellence of performance and adequate preparation for competency in practice. These young women had already been schooled for fields of endeavor involving body movement, maintenance of effective body structure, and teaching; but, in addition, they had a sensitivity and concern for the individual. Those of us who had the privilege of knowing a character member, either as an instructor, chief, colleague, or as a member of the Association's governing body could not help being impressed with the dedication to the profession by her high ideals.

The first business meetings of the Association were concerned with establishing membership qualifications, and the early minutes reflect that setting of approved programs in education in physical therapy appeared in an issue of the Physiotherapy in 1944 with a member of the Association's governing body. It was a hard job in carrying out the work of the Association on a volunteer basis. With the financial assistance of the National Foundation for Infantile Paralysis, the United States Army invested large sums of money to prepare qualified physical therapists. For years, the elected officers and appointed committees of the Association had done a heroic job in carrying out the work of the Association on a volunteer basis. With the financial assistance of the National Foundation for Infantile Paralysis, an Association headquarters had been established in New York in 1944 with a member of the Association serving as executive secretary on a full-time basis and functioning under the direction of the Association's executive committee. The headquarters co-ordinated the wide range of Association activities and became the focal point for obtaining and disseminating information about physical therapy and physical therapists. Kinds and types of services required at a national headquarters grew rapidly. Within a ten-year period, the Executive Division was expanded and the Division of Education and Professional Services were created, requiring additional office space. The offices moved four times in the same building in the ten-year period.

Field service, complementing and supplementing activities inherent in the central office, was initiated to provide representation at meetings of other organizations, assistance in developing chapters, assistance to developing schools of physical therapy, and assistance in polio epidemics. Poliomyelitis epidemics increased during the 1940s and early 1950s. Over 57,000 new cases were reported in 1952. The distribution and availability of qualified physical therapists created serious problems in meeting this emergency. During these critical years, the National Foundation for Infantile Paralysis collected funds for paying hospital costs of polio patients, educating professional personnel needed in the care and management of polio patients, recruiting and assigning personnel to epidemic areas, and conducting research for eliminating the disease.

The Association cooperated in these efforts by recruiting and assigning hundreds of physical therapists to epidemic areas. The Association was also involved in identifying physical therapists by state and region who could be available at specific times and places for muscle retraining programs to be utilized in studying the effectiveness of gamma globulin and finally the Salk vaccine in the control of poliomyelitis. Specific procedures had to be designed for uniformity in collecting data, and all physical therapists participating in the studies attended orientation sessions to develop the skills required in precise procedures and recording.
From the time one physical therapist was assigned to the initial field trial team in Pueblo, Utah, in 1951, additional physical therapists were identified and trained in the same procedures for the succeeding years for continuing studies. During the 1954 field trial efforts, seventy-six physical therapists with specific instructions to the procedures to be used were on call in all parts of the United States and in three provinces of Canada. During these years of extensive field service, much was learned about what was beginning to be expected of physical therapists.

As we moved through the past ten years toward the half century mark in the life of the Association, certain selected events can be identified that have had and will continue to have influence on the Association’s development.

1. Interprofessional relationships with other organizations were critically reviewed, with some old relationships terminated and new ones established.

2. The Association increased its participation with the Council on Medical Education of the American Medical Association in the accreditation of educational programs leading to professional qualifications in physical therapy.

3. The McMillan Scholarships were initiated—made possible by the generosity of our first president, Mary McMillan, who had given such enthusiastic leadership to the Association. She invested in the future of physical therapy by providing scholarships for senior students who had demonstrated great potential for contributing to the growth and development of the profession.

4. By action of the House of Delegates, a new category of worker was established—the physical therapist assistant. Curriculum guidelines were developed for the new physical therapist assistant programs which were established at the associate degree level. The role of the physical therapy aide was also described, and guidelines were developed for on-the-job training.

5. The financial support provided to the Association by the National Foundation was terminated in the early part of the last decade as the Foundation’s program changed. After twenty years of support, the Association assumed full financial responsibility for its own operation.

6. The negotiations and relationships of the physical therapists were affected in new ways. Professionalism vs. unionism, collective bargaining vs. negotiations, nationalism vs. state rights, levels of responsibility and job descriptions, and individual vs. group action were debated. In the increasing complexity of the socioeconomic structure, the practicing physical therapist was having problems.

7. The interpretation and implementation of the 1960 amendments to the Social Security Act became matters of great concern to the Association during the following year. Although the Association had been identified and had been a force in the Washington scene for many years, the need to obtain wise counsel pertaining to legislation and to be able to identify implications for the physical therapy profession became imperative; therefore, consultation services concerning federal legislation were formalized.

8. Federal funds from the Social and Rehabilitation Services Administration, which has supported a yeartime institute for teachers of physical therapy for more than ten years, were terminated in anticipation that other avenues within the profession would develop for enhancing the performance of instructors.

9. “The Study of Basic Physical Therapy Education,” supported by the Therapy Fund and the Social and Rehabilitation Service Administration, was accomplished by the end of the decade. The findings in the study have been published in Physical Therapy. The final report in the series presents evidence of the relationships between education for physical therapy and the practice of physical therapy which have implications within and outside of our profession.

THE PRESENT

At this half-century mark in the Association’s life, certain events and figures may be significant.

1. Since our founding in 1921, over 22,500 individuals have met qualifications and have been admitted to membership in the Association. Over 10,000 members were admitted in the past decade. Currently there are over 14,000 holding active, inactive, or life membership.

2. A total of seventy-nine educational programs in physical therapy have met accreditation or approval requirements since the first programs were approved. Some programs have closed, others have changed their name, or moved their affiliation to a college or university. Currently, there are 53 accredited educational programs leading to professional qualifications in physical therapy.

3. At the time of our twenty-fifth anniversary there were state laws affecting the practice of physical therapists in three states—Pennsylvania, New York, and Connecticut. During the next fifteen years, thirty-three practice acts were enacted: seventeen were enacted during the past ten years. As we celebrate our fiftieth anniversary, practice acts for the licensure or registration of physical therapists exist in almost all the fifty states, the District of Columbia, the Commonwealth of Puerto Rico, and the Territory of the Virgin Islands—thus fifty-three laws affecting the practice of physical therapy. This is one goal we have reached.

4. The chapters, chartered by the Association, have continued to grow in stature and are readily identified as the state component continuing with leadership to the Association. Chapters are set forth in the object and functions of the Association. Chapters have reorganized along state lines in order to become a more effective force in programming and in representing the interests of physical therapists in the states, Commonwealth, Territory, and District. A few chapters have initiated funds for salaried individuals to assist in the management of the chapter’s activities and the interests of the membership.

5. During the past twenty-five years, sections with special interests have developed within the Association. This is a reflection of the needs of the membership for a forum or a mechanism for getting together for discussion and interchange of experience in special interest areas. The names of these sections—Education, Public Health, Self-Employed, Research, Administration, and State Licensure and Registration—reflect the expanding interests of our membership.

6. The financial picture of our Association has changed. In 1921, the dues were two dollars; they have been raised eight times in the fifty-year period. During the first twenty years, the work of the Association was carried on by a valiant group of members on a volunteer basis with very limited funds spent out for the necessities such as postage, and now, and then, reimbursement of transportation and expenses for needs. During the next twenty years, the Association enjoyed substantial financial assistance from foundations and the federal government for the development of programs and services inherent in the growth of the profession. During the last ten years, we have been able to write within our means with an appreciation of our heritage and past benefits, and to move forward in building and supporting a respected professional association.

In retrospect, physical therapy appears to have been born and to have grown in response to needs of people—in times of crises—epidemics—wars...
“As we move into the next fifty years, we may be challenged with problems pertaining to the quality of our performance and our relationships with other groups.”

The challenge is critical, and it is not one that we can ignore. The safety and effectiveness of physical therapy are of utmost importance. The Association and its members must be prepared to meet these challenges with courage and wisdom gained from past experiences. Dr. Roger Egebert of the U.S. Department of Health, Education, and Welfare has said: Criticism of existing systems and institutions is necessary but in criticizing we must not destroy the achievements of men and women who before us exerted great energies and talents towards the same goal—a life of health and well-being for all. ... During the 1960s we have identified the allied health manpower needs. We need to improve curricular content and teaching methods for the allied health professions and to develop methods for recruitment, retention, and training of allied health workers. ... We need to stimulate the development and dissemination of information related to supply, requirements, recruitment, education, and utilization of allied health manpower. This statement might very well become the premise in projecting responsibilities which we are meeting now and which we will continue to meet in the future.

Distribution and availability of qualified personnel in the health industry demands critical evaluation. We need to maintain factual information regarding the numbers of physical therapists, their location, types of institutions on which they work, and the kinds of services they are performing. We need to know the ratio of practicing physical therapists to the general population in the nation and in regions. Do we know what would be a desirable ratio of therapists to the general population? Do we know which factors may influence that ratio? Undoubtedly, changes will occur in the delivery of health services in the 1970s.

Physical therapy will be affected and physical therapy services must be ready to be involved in such changes. We must explore further the patterns of delivering patient care services, including the identification of organized physical therapy services within regions. In our time, we may witness marked changes in the role of hospitals, both general and specialized, the development of regional organizations consisting of primary hospitals with satellite facilities for the extension of services to meet basic care needs. We may see a federal hospital system. Programs for assuring coverage for physical therapy services seven days a week through the implementation of rotating staff are already in existence in some hospitals and health care agencies.

Comprehensive health planning is not a new concept but it is receiving increasing emphasis. Representatives from the private and public sectors including the health professions, have talked about, have philosophized about, and have proposed patterns for interagency referral systems and for coordinating activities, but doing something about comprehensive health planning is overdue. The Association and the chapters will be required to put this concept into meaningful practice if we are to “meet the physical therapy needs of the people,” and if we are to provide a high standard of excellence in patient care.

Several recent studies have contained challenges that licensure and registration on a state basis be barriers to the movement of personnel from state to state and are handicapping adequate distribution. Also, questions have been raised about refresher or its equivalent for maintaining competency for practice in the health professions. State rights versus federal control is becoming central. The development of the Interstate Reporting Service of the Professional Examination Service should be helpful in obtaining uniformity, but may take years before its nationwide use will be effective. Physical therapists serving on state examining boards will need to be equally aware of the skills and knowledge required in carrying out their responsibilities. Continuing educational programs developed on a national or local level will need to include not only the presentation of new knowledge but the opportunity for engaging in “refresher type experience.”

The Association must be equipped to schedule on-site visits by competent surveyors for the accreditation or approval process of education programs preparing both physical therapists and physical therapy assistants. Such a schedule will require programming on a five-year basis projecting to a ten-year period. Although standards for the education of physical therapists and assistants have been established, interpretations of these standards through guidelines for curriculum development will need periodic review in relation to changing needs.

Exploration of the purposes of graduate study, both general and specific, can be expected to identify desirable subject matter in relation to teacher preparation, supervision, and administration of services.

Although standards for physical therapy practice have been developed, they will require investigation for public information as well as audit review procedures for understanding and maintaining quality performance. We should anticipate that mechanisms may be developed for controlling services or judging the quality of services provided by institutions or agencies. Accreditation programs already exist for some of these. The Association must be ready to participate in such activities as physical therapy has become an integral part of health care services for people.

In the delivery of patient care services, the demands of the citizenry for health services, and the anticipation of changes in health insurance programs are a concern to all of us. Quality and quantity will be questioned and performance will be translated into values received.

“Do we know what would be a desirable ratio of therapists to the general population? Do we know which factors may influence that ratio?”

**PHYSICAL THERAPY**

“We must explore further the patterns of delivering patient care services, including the identification of organized physical therapy services within regions.”
Margaret Knott was the eighth recipient of the Mary McMillan Lecture Award in 1972. She was graduated from Appalachian State Teachers College with a Bachelor of Science degree in physical education and science, and received her physical therapy certificate from Walter Reed Army Hospital. Ms. Knott served as a second lieutenant in World War II. She has been a Director of the American Physical Therapy Association. Ms. Knott has received an honorary Fellowship from the Chartered Society of Physiotherapists and Honorary Membership from the Canadian Physiotherapy Association. Ms. Knott co-authored Proprioceptive Neurovascular Facilitation and has taught the techniques worldwide. She has also written numerous articles for Physical Therapy.
Eighth Mary McMillan Lecture

In the Groove

MARGARET KNOTT, B.S.

I am proud and privileged to present the lecture named for Mary McMillan. I realize full well it is one of the highest honors of our association. I did not have the privilege of knowing Mary McMillan but the most fact that she left a legacy to support others in our profession demonstrates her dedication to the profession. The scholarships granted in her name provide opportunities for many young physical therapists to enrich our field through further study and research.

As I think of my own development, I would like to say that my success in physical therapy was definitely influenced by my association with Dr. Herman Kabat. He got me "in the groove" in 1946 when I first went to work with him. The influence and stimulation he gave me reinforced and strengthened my whole approach to the profession, and the learning and experience gained in my nine years with him gave me the basis and foundation for a most satisfying career. Without his driving force, I may not have driven others so energetically in using proprioceptive neuromuscular facilitation for the past twenty-six years.

I would also like to mention Dorothy Voss, without whom books may have been written, but I can assure you they never would have been done so well. Dorothy is a talented, conscientious, and born writer. She put all those good points together for us and this is my opportunity to thank her for all of her time and hard work. She is a good example of her belief in proprioceptive neuromuscular facilitation because she made it work for her own disability.

INTERNATIONAL RELATIONSHIPS

You may know that we have had a postgraduate program for physical therapists for the past nineteen years in Valles, involving over

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Margaret Knott

MARGARET KNOTT is Coordinator of Patient Services, Kaiser Foundation Rehabilitation Center, Vallejo, CA 94590.
"I would like to see our association become more involved in international professional affairs through the World Confederation for Physical Therapy."

one thousand physical therapists in that time. The opportunity of those attending our course who had physical therapy education in other countries; those educated in America comprised the minority. We are often asked: "Why do you have more foreigners than Americans?" Perhaps the answer is that the opportunities for the physical therapists in the United States are greater than for those overseas. Overall grants and financial support for our profession on an academic level have been more available here than elsewhere. We have had many more advantages than physical therapists from other countries; therefore, developing technical skills may have been less appealing to the Americans than research or more advanced study.

Because there is a real advantage to be gained, I would like to see our association become more involved in international professional affairs through the World Confederation for Physical Therapy. With those who believe we are truly involved already, I tend to disagree. We need to change our perception of the World Confederation for Physical Therapy in our Journal. Many young members of our association even ask what it is and what it does. I believe the objectives of this international organization are sound and were actually influenced by this association’s principles through its first president, Mildred Elson, who was also a former executive director of the American Physical Therapy Association. I believe that the physical therapists who have served as officers of the district representatives of this international organization would agree with me that our members could be more knowledgeable in world settings. The developments in our field. With greater exposure, we could provide better financial support. The resulting professional relationships among countries would be a distinct advantage to all of us.

I believe more qualified foreign-trained physical therapists should be permitted to work in the United States if they meet the requirements of our association through examinations, internships, and state legislation. I think we would have many deserving persons practicing effectively if we screened instead of tightening the reins. My experience with foreign-trained physical therapists has been a rewarding one. Educational standards vary from country to country, and in some countries, we can consider them inadequate; however, when I consider the clinical skills so many of the foreign physical therapists achieve with patients, I am impressed. Their interest in improving patient care is sincere.

The profession of physical therapy is better known and more highly respected in many countries than it is in the United States. The services of physical therapy are used routinely by medical staff in other countries and adapted to many conditions. In many instances here, we are still having to prove ourselves professionally to medical personnel. Physical therapy is an older profession in Europe; it even had its birth there.

In spite of our critical view of the educational standards of other countries, we must recognize many areas where they excel and we can learn from them. The majority of our physical therapy programs in chest and respiratory conditions are substantially better than what we have to offer. I often wonder if we are prepared to meet overseas or Canadian programs I have seen or know about. Physical therapy is essential in cardiac surgery and physical therapists make up a part of the team; but do we? We are doing better now with the treatment of cystic fibrosis but some of our foreign colleagues have been working with it successfully for years. Pre-treatment and post-treatment (especially pre-treatment) of surgical patients is not routinely handled as well by us as by many foreign teams. In foreign countries, patients are admitted early enough to receive instructions in the treatment they will receive; surgery is often canceled if this is not done. Seldom does such a thing happen in the United States. Also, we are not involved in preparing mothers for childbirth except in a few instances. Manipulation has been an art and a tool for physical therapists in many countries from its inception. We have been crying about its place in our profession so long that we have almost lost it as a tool, except in those states where legislation has been initiated to exclude it from physical therapy practice. We must admit, the foreign-trained physical therapists surpass us in language proficiency, often speaking two, three, or more languages.

Some people think we already provide too much for our visiting physical therapists, citing that, since we cannot work in their countries, we should not make all the welcome gestures. Actually, American physical therapists can work in foreign countries and need only to get work permits through the member organization headquarters. Salaries in foreign countries are not high, but living costs are lower than in this country. Mary McMillan, for whom this lecture was named, spent ten years in China before World War II. She once said, "The Chinese write in a reverse way. I sometimes imagined their thinking was in reverse of ours. I think the thing that helped me in my early days in Peking was the lot of lines. 'To get adjusted to the world is after all the better plan. It won't adjust itself to you for it was there centuries before you came.'"

DO WE OVEREMPHASIZE TRADITION?

We must admit that our system of physical therapy education in this country has been steeped in tradition. Certain things that were taught fifty years ago must still be taught, merely because they have always been taught. This is not a direct criticism of the discipline per se, but more an overview with some thoughts on our training. Clinical instructors should be able to shake off the chains of sanctifying tradition. The lore taught from class to class just because it is always has been a large portion of time that could be spent more profitably. I would like to see more emphasis on the development of a logical or really scientific approach to exercise for a variety of patients. We simply incorporate muscle testing procedures into our exercise program. Exercises were given the same way the strength of an individual muscle was tested. For accuracy in testing, it was essential that muscles be isolated, yet we know we do
In muscle testing, we are pinpointing the weaknesses and disabilities and not the resources of strength and the ability to rebuild them. 

NEW IDEAS CREATE NEW TECHNIQUES

To illustrate how freedom to develop the ideas suggested through clinical practice could evolve in a new whole approach in physical therapy, I would like to review the thinking and gradual adaptations of new ideas which became proprioceptive neuromuscular facilitation. In our exercise program, our effort was concentrated on getting the patient to do all he possibly could do with the least expenditure of energy. The technique of exercise that I had been taught disturbed me. Granted, we need a test to provide a baseline for evaluation, but why did we continue to use that technique for functional improvement? Logically, more thought needed to be given to kinesiology and the actual functioning of normal muscular systems. Muscles do not work in an isolated way. In a muscle contraction, the muscle fibers will shorten and pull that portion in a given direction. Muscles are spiral in character and rotation is a key to movement; therefore, functional motions are diagonal, not straight. Normal everyday activities are all diagonal. Diagonal motions pull easier and hold better when placed in a diagonal position, and the strength of muscles is greater in that position also. Sports activities, in which the greatest skill and coordination are demanded, support this idea. Spiral and diagonal motions are clearly demonstrated in the performance of skilled professionals. These motions are the same as the patients' facilitation described by Knott and Veys in 1954. Motion and exercising in this pattern makes the most logical sense to those of us who have had experience with this concept.

Exercising in diagonal and rotatory directions is not sufficient to ensure the greatest improvement; resistance, manual or mechanical, needs to be applied with skill to improve strength and coordination of the functional patterns. In our traditional exercise approach, something was missing. Often, we had the patient pull a certain part of the body to a given point and hold it rigid, at which time we broke the hold and graded the patient's strength by how hard we pulled against him. Ample time to have the patient build up tension was usually not allowed. This again appeared to be a negative approach.

Application of appropriate maximal manual resistance is a skill which I believe needs to be carefully taught in our early training. It is a feel for what the patient is doing. It is not something we say to the patient with the expectation that results will be achieved. As therapists, we must adapt our actions to the work capacity of our patients. Physical therapists initially give too little resistance, and often actually assist the patient too much by working too fast. In other words, therapists are primarily attempting to move the part without maximum participation on the part of the patient. On the other hand, a physical therapist may give too much resistance, not even allowing the patient to get started. When the initial effort is lost, fatigue take over and it is accomplished except frustration on the part of both concerned.

I believe more concentrated efforts and more time should be spent early in physical therapy training to teach simple resistive movements by which the therapist can enable a patient to participate to his full capacity in any exercise. In that early training, precise hand placement should be emphasized in giving manual resistance, with pressure always applied completely opposite to the desired motion. A rhythm then develops between the patient and the therapist which greatly facilitates the movements of both. By applying pressure opposite to the desired motion, the skin receptors play a part. This is an application of the neurophysiological phenomenon called "local rings"; that is, the location of the external stimulus influences the response pattern. "Laying on of hands" may be tradition, but I am convinced it is here to stay.

USE OF REFLEXES AND PHYSIOLOGICAL PHENOMENA

Exercise programs cannot always be effective if we expect total cooperation on the part of every patient. Of course, the ideal patient is one who is completely conscious, eager, willing, and, most of all, able to do exactly what he is told. These are our easy successes requiring little ingenuity or know-how on our part. The real challenges come with the difficult nonresponsive-to-command patients who also have innumerable neurological deficits. With these patients, we need to make use of reflex mechanisms below the level of consciousness to initiate motion and to eliminate or reduce unwanted spasticity. At this unconscious level, we may reinforce or guide the voluntary attempts for smooth contraction through range of motion, and may supplement lost cortico-spinal pathways by developing compensatory extrapyramidal and spinal routes in the hope of restoring use and strength to weakened muscles. In treatment, we expect too much cooperation on the voluntary cortical level.

In introductory courses in physiology, the student learns about simple reflex arcs in the knee and elbow jerk. He may also learn about the extensor-dorsus, crossed extension, stretch, and withdrawal reflexes. The significance of

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these might improve the treatment more if they were related earlier to actual treatment. Experience has shown that the use of reflexes or physiologic phenomena can lead to greater success and satisfaction in patient care, not only for patients with neurological problems, but also for patients with many other problems. Simple or acute pain affects the entire central nervous system. Our systems are so complex that everything we do influences something else. Often the "something else" we do has more desirable results on the specific problem than attacking the more obvious defect. We often defer ourselves by directly approaching the most serious problem, thus focusing all the patient's attention upon it. Patients respond best when emphasis is first placed on the pain-free or uninvolved parts. This is a positive approach because you are giving him a chance to do what he can do easily. In the process, he learns what will be expected to do with the severely involved parts.

Many investigators have studied cross education. Over twenty years ago, Dr. Hellerbrandt and her associates, including physical therapists, reported their research on cross education. They showed that bimanual exercise influences unilateral work capacity, and that ipsilateral and contralateral exercise influences unimanual training.

In a recent study of contralateral irradiation, a patient who had found that contralateral irradiation occurred in 84 percent of the contractions in flexion and extension of the fingers, Dr. Katzer developed an exercise in 1946 that exercise procedures could be effective in patient care based on the phenomenon of irradiation. As his approach developed, exercise programs changed. Emphasis was placed on starting exercises with the more severely involved groups of muscles so they might reinforce or help the weaker groups. Resisted bilateral patterns were the usual, not the rare, occurrence. Many combinations of strong and weak movements were also utilized frequently. Full flexion or mass extension patterns with maximal resistance were effective.

This approach was a new concept of exercise in physical therapy. It involved treatment of the total patient, and not just a muscle. That these bilateral patterns could be developed at a condition faster than other procedures met with skepticism and disbelief. Real challenges came from all segments of our profession and the medical profession, and much time was devoted to demonstrating that the approach was worthy. Early and continuing research would have helped. None of the challenges or experiences changed the basic objective and goal—to give the patient the best we knew—because we did see them improve.

The stretch reflex (myotatic reflex) has been a valuable tool in treatment from the beginning. It was used to initiate motion, to overcome fatigue, or to facilitate or strengthen responses in functional motions. Dr. Katzer showed that by manually eliciting a stretch reflex simultaneously with the patient's effort to perform the movement, the contraction of the muscle groups involved in the same group. The response occurs over the reflex arc. Repetition of this activity frequently leads to voluntary responses if potential is exerted on remaining fibers and acts on the spinal cord. Fatigue is overcome by reflexly clearing the pathway with the stretch. In order to properly elicit a stretch reflex manually, the part must be taken to the point of greatest elongation of the muscle fibers of all muscle groups involved. In this elongated state, the muscle is stretched quickly in the direction of its fibers with emphasis on the rotary component. The lengthened range of a given part is the point at the "groove." The use of the stretch reflex has been an excellent tool for treating all kinds of disabilities with the exception of some pain problems. The pain reflex inhibits any possible voluntary response by the patient.

MEETING NEEDS OF EACH PATIENT

Many additional techniques have been developed to meet the needs of specific patients. Each patient demonstrates a specific deficiency which must be carefully analyzed, and an appropriate technique must be applied for best results.

Since 1953, cold applications have been used in conjunction with this exercise program. We have found cold to be most helpful in relaxing spasticity and decreasing pain, and have used it in two ways: placing the patient in an ice bath, or placing cold towels wrapped from ice over the area of pain or spasticity. Mat activities are an important part of our treatment. Patients are taught how to perform functional activities with and without resistance. Mat activities are an important part of our treatment. Patients are taught how to perform functional activities with and without resistance. The two purposes of mat activities are: 1) to improve overall motor coordination and 2) to improve self-care and independence. Activities of the most primitive nature are performed first, followed gradually and slowly by the developmental sequences. In these developmental patterns, the head, neck, trunk, and extremities all work together to stimulate innumerable reflexes all of which aid in motor recovery. No better way exists to improve strength of the neck and trunk than by giving maximal resistance to these developmental patterns.

We can tell our patients to roll, sit, and crawl, and this can be helpful. Guiding and resisting them through primitive activities speeds recovery tremendously. Even pain problems can be treated effectively on mats with a carefully selected program. Too many of us believe that as a treatment table and a machine are our answers to the pain problem. I would rather see more patients treated on mats in physical therapy departments than on machines that work just as well turned off as on. Home exercises on a living room rug can be an extension of a patient's program. In addition to resistive mat activities, resistive gait and

remaining self-care activities should be included in the program. In all of these exercise programs, we should remember that placing a demand on the proprioceptors is far better than relying on the spoken word alone. Although intensive individual treatment is expensive, the better results achieved in less time may be more economical in the long run.

THE NEED FOR INVOLVEMENT

Finally, in this era of change, there is another groove we must get into—the community in which we live and work. We can no longer afford to ignore everything except the patient in our cubicle.

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"We have found cold to be most helpful in relaxing spasticity and decreasing pain...."
activities to the fullest for our own personal success. Granted, our reason for being a physical therapist is the patient, but our protection is also his. Many of us hate to face these facts but we are here. Let’s face them.

SUMMARY

In summary, I would say again that this honor has been a pleasure. It has given me the opportunity to share ideas you all would like to emphasize my comments about the support of the World Confederation for Physical Therapy and the foreign-trained physical therapist. I have tried to give you reasons and logic for considering proprioceptive neuromuscular facilitation as a sound exercise approach for dealing with problems we face in our profession. The era of change is here and we are forced to work in all areas of society, in addition to providing good and comprehensive patient care. Those giant steps for mankind that Armstrong talked about are ours to give in our profession. Also, Hippocrates has said “That which is used develops. That which is not used wastes away.” And finally, as Confucius has said, “Turtle makes no progress until neck is out!”

REFERENCES

Ninth Mary McMillan Lecture

Tomorrow Now: The Master’s Degree
for Physical Therapy Education

LUCILLE DANIELS, M.A.

The opportunity to give this lecture has a special meaning for me, since it was my privilege to meet and become acquainted with Mary McMillan after World War II. My first contact was at a national conference of this Association in New York where she gave one of the most stimulating addresses it has been my privilege to hear concerning her pioneer life in China and her imprisonment in Manila during the war. Later she came to Stanford University as a visiting lecturer for a summer workshop in physical therapy. At that time, her sense of mission in regard to the clinical and educational aspects of the field, her tremendous enthusiasm for those things in which she believed, and her warm and outgoing personality captivated all persons with whom she came in contact.

Miss McMillan was a teacher of physical therapy in an academic setting in this country during World War I and at Peking University medical center in China in later years. She had a lifelong interest in education. If she were here today, I am sure that she would be in the vanguard of educational leadership. A Mary McMillan lecture, therefore, devoted to physical therapy education in the United States seems to me to be appropriate.

My choice of the subject “Tomorrow Now—The Master’s Degree for Physical Therapy Education” was made because of a deep conviction that basic professional preparation at the graduate level is an important step in the evolutionary process and that the rapid development of such programs is justified and should be encouraged.
...all physical therapists must be prepared for expanding responsibilities in the field."

SEQUENCE OF THE DEVELOPMENT OF PHYSICAL THERAPY EDUCATIONAL PROGRAMS

The evolutionary development of physical therapy education supports this belief since it has followed a cycle similar to that of the other health professions. After an apprenticeship method of preparation before World War I, formalized programs of study were developed, for the most part, in hospitals. This pattern continued throughout the 1920's. In the next decade, the evidence is evident from the relatively informal hospital courses to curricula in colleges and universities culminating in the award of a baccalaureate degree. The impetus given by the widespread use of physical therapy in World War II and its use during the many years of the devastating poliomyelitis epidemics led to the development of a steadily increasing number of schools, most of which were established in academic institutions. This pattern of expansion in physical therapy continued without variation for almost twenty years. During this period, the few remaining hospital schools arranged affiliations with selected colleges for the acceptance of their courses toward a degree. Certificate programs were available to those students who had completed an undergraduate program which had included specified courses. Concurrently, the first master's degree curricula in physical therapy were established, all of which required completion of basic physical therapy education and approximately two years of practice as a physical therapist prior to admission.

The first radical change in the pattern was the organization of a graduate program at Western Reserve University in 1959. The elements of the certificate and the master's degree programs for the graduate physical therapist were integrated as a continuous sequence without the intervening years of clinical experience. The development of the new program appeared to be based on two factors: 1) the philosophy of the physical therapy faculty that a professional program should be at the graduate level and 2) the insistence of the university administrators that a curriculum in physical therapy at that institution must be of graduate caliber.

Since the pioneer basic graduate curriculum, five more programs have been established with professional preparation at the graduate level. The first was at the University of Southern California, the second at Stanford University. More recently, Duke University and the United States Army-Baylor University have offered similar programs. In 1972, Texas Women's University admitted the first students. Of the five schools, only Duke and Stanford universities have limited their programs to a single curriculum leading to the master's degree.

According to a recent career brochure from the American Physical Therapy Association, fifty-nine basic professional programs are currently accredited. It can be seen, therefore, that approximately 8 percent of the total number of schools offer the basic curriculum at the master's level. It should be emphasized that in the period since 1959, at which time the first program was established, five accredited schools have changed their pattern of education from the undergraduate to the graduate level or have added the option of enrollment in a program of advanced study.

The philosophy of the master's degree program for basic physical therapy education has great appeal for people who visualize the physical therapist of the future as truly professional: a person who will assume an increasing responsibility in patient management, be highly skilled in patient evaluation and programming, have proficiency in supervision, and be able to communicate easily with health personnel at all levels.

In the same brochure on careers in physical therapy the national Association published in April 1973, this statement appears in relation to the basic master's degree program:

"Upon graduation, the recipient of a master's degree usually finds employment in an administrative position..."

It is true of several master's degree programs from these basic master's programs that have been drawn into academic teaching, supervision, or administrative positions because of the dearth of physical therapists with an advanced degree, or because they planned career in one of these areas before entering the school. Many with this preparation will continue to accept these positions. Looking to the future, however, it appears that all physical therapists must be prepared for expanding responsibilities in the field. Emphasis in the graduate programs for basic education, therefore, must be placed on preparation for this broader concept of practice. Academic teaching or careers in administration may well become the subject matter of education beyond the level of the master's degree in physical therapy or the subject matter of specialized programs in other schools of the universities such as science, business administration, or public health.

The rapidity with which the change in physical therapy education to the graduate level can take place will be influenced by cost and the time it takes for this philosophy to be accepted. Within the next decade, however, one can reasonably predict that these programs will increase substantially.

Many factors are expediting this change. Among them are 1) the alterations in socioeconomic conditions, 2) the shift in the concept of patient services from medical to health care, 3) the change in the patterns of health care delivery, 4) the impact of the level of education on the peer relationships within the health team, 5) the recognition of the social utility of the master's degree, and 6) the potential for variety and flexibility in the educational programs.

SOCIOECONOMIC FACTORS AFFECTING EDUCATION FOR THE HEALTH PROFESSIONS

As noted by Somers in the Journal of Health Services Research, recent trends in our economy and social structure are radically affecting the supply and demand of the health services.

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"A populace more knowledgeable about health care and more cognizant of its quality makes a definite impact on the demand for care."

Among these, the increase in population, the continuing increase in the over-sixty-five age group, the rise in income levels, and the steady increase in educational levels have greatly enlarged the demand for health services and have made the demand an effective influence. In summary, her research on these factors emphasizes the following points:

First, the population from 1900 to 1965 has more than doubled (76 to 196 million). Projections for 1985 have ranged from 248 to 276 million. These increases demand a new look at health care. The total number of health workers required to maintain a reasonable ratio to patients needing care has been recognized to be of primary importance. With the increase in total population, the maintenance of such a ratio has necessitated a vast expansion of health manpower.

Second, the growing number of the elderly has changed the demand for care. A large proportion of the population survives into middle and old age which means more illness and disability per capita.

Third, as judged by the gross national product, the rise in national income has more than doubled since 1950. The increase has made it possible for large segments of the population to purchase health insurance of almost every conceivable kind and to pay for private care at a rate unknown in the past. Medicare and Medicaid have financed a large portion of the care of other segments of the population. The demand for medical care is likely to increase significantly in the years ahead as economic barriers are removed or minimized. Somers asks: "What changes in policies are desirable to meet the probable shift
from underutilization, associated with traditional financial barriers, to the kind of pressure that may be expected for near-universal access to health care?"

As a comment on Somers' question, perhaps we should look further to universal access to health care, a possibility in this century. If we consider extensive preventive measures such as physical examinations and checkups of all kinds for normal individuals, complete care for those with acute conditions, and care of the follow-up of patients with chronic disease, the prospect becomes staggering. Nonetheless, such care has been carried out at a marked degree in some other countries. Why not here?

The final socioeconomic factor pointed out by Somers is the steady increase in the educational levels throughout the country. For example, from the mid-1950s to the mid-1960s, high school graduates increased from 60 to 77 percent. During the same period, the number of bachelor's and first degrees and the doctorates almost doubled. Thus, we see a trend toward higher education across the country. A more knowledgeable public about health care and more cognizant of its quality makes a definite impact on the demand for care.

The socioeconomic factors outlined have resulted in an expansion and improvement of long-term preventive, rehabilitative, semisupervised, and medical-social health services. These have also helped to bring about a change in the concept of care.

**CHANGE IN CONCEPT OF MEDICAL CARE TO HEALTH CARE**

In the past ten to fifteen years, the concept of medical care has changed to one of health care with emphasis on the provision of continuous and coordinated services."

"...the role of the physical therapist in the prevention of chronic disability will not be fully recognized unless the therapist participates in the functional screening of the patient and the planning for his health care."

"...we must look to the faculties of the schools of physical therapy, both academic and clinical, to justify their programs in regard to more and better health manpower. Attempts have been successful in providing more manpower in physical therapy by the increase in the number of schools, the introduction of formal training for physical therapist assistants, and the greater use of aides. Concomitantly, however, the increased use of supportive personnel has brought about a need for an increase in the more complex professional skills involved in supervision and clinical teaching.

"Conine made an interesting statement in relation to these points in her 1972 report on a follow-up survey of 224 graduates of a physical therapy curriculum at a midwestern university. She stated: "Decision making and participation at all levels of patient care (departmental, institutional, and community) appear to be expected of a physical therapist." She stated further that a content analysis of the comments from graduates and their employers indicated that "greater emphasis should be given in the curriculum to areas of human behavior, interpersonal relationships, management and supervision, business procedures, and community aspects of health care."

"Physical therapy educators must question whether the skills enumerated can be crowded into an already overcrowded baccalaureate program without seriously diminishing the time given to the liberal arts and specific courses closely related to professional preparation.

**CHANGING PATTERNS OF HEALTH CARE DELIVERY**

The changing patterns of health care delivery have also had a marked effect on physical therapy. One change is the location where the care is given. Physical therapists have long been hospital oriented. The majority have received their clinical practice and subsequent employment in these institutions. In recent years, the trend has been toward treating the patient where he is. An increasing number of extended care facilities, nursing homes, community health centers, ambulatory care centers, home visiting agencies, and self-employed physical therapy practitioners have cooperated with the hospitals for the services of the physical therapist. This trend in health care delivery is beginning to be reflected in the academic and clinical phases of the school curricula. The necessity for the behavioral and social sciences as background for practice, in consequence, is taking on more meaning for the clinician and requires greater depth and breadth of educational preparation at the undergraduate and graduate levels.

A second changing pattern of health care delivery has been based on the advent of the assistant for the health professional. As noted by Somers: Still dominated by the co-director to one-patient methodology, the industry (medical) is just awakening to the fact that adequacy of supply is not simply a question of numbers of personnel. It is related to changing technology, the development of new skills and professions, the substitutability of varying skills with different "moves," methods of instructing services, personnel practices, and so on.

In physical therapy, the acceptance of the assistant and his training in an academic setting is a reflection of this awakening. The idea of the assistant was slowly resisted for many years. Only recently has there been a realization that the assistant is here to stay. The person-to-person relationship with the patient has been long treasured by the physical therapist, as it has been by the physician, and the sharing with supportive personnel has been difficult to accept. Now the therapist has additional work to do—teaching and supervision of assistants and aides, the evaluation of patients, and the planning of a complete physical therapy service, including his own contribution to the care of the patient.

A third changing pattern of health care delivery has been the increasing use of the
... the referral procedure has been acknowledged by this Association as the only acceptable relationship between co-professional personnel."

health team. As noted in an editorial by the president of the American Association of Medical Colleges in the March 1973 issue of its journal, team education is claiming the attention of medical schools. As a part of their education, medical students are working with others who are receiving preparation as physicians' assistants, nurse practitioners, and allied health professionals. The use of the health team is not new, but the initiation and implementation of the concept at the medical student level is one of the most encouraging prospects that has been seen. Based on such a preparation, physicians' interest should no longer be limited to a few specialty groups. The physical therapist, then, must be prepared to work with any physician as well as with the other health professionals on the team.

PEER RELATIONSHIPS

The importance of peer relationships in the functioning of the team should not be underestimated. Although the health team has been eulogized as the answer to the problem of total patient care, it has met with varying degrees of success or none at all depending upon a number of factors. The view of the physician in relation to his role has been of major importance in these joint efforts.

McTearnd states in his recent book Educating Personnel for the Allied Health Professions and Services that an inevitable trend is the acceptance of the concept of collegiality, or, in other words, the old caste system that placed all doctors and medical authority in the hands of the physician will be increasingly set aside as allied health personnel assume a collegial rather than a servant relationship to the medical profession.7

Butler, an outstanding spokesman for the medical profession, supports the concept of collegiality in a section of the same publication when he states that:

The Hippocratic ethic has for centuries stressed the physician's sole responsibility for the welfare of his patient, yet neither the traditional ethics of the medical profession nor existing medical practice acts were designed for the complex inter-institutional multidisciplinary health care system of today. There is, therefore, a need for a new and expanded ethic that recognizes the intricate web of shared responsibilities essential in today's medical care. In place of a series of separate ethical codes for each profession, there is a need for an ethic of the health professions that will embrace all who serve the needs of patients.8

This concept of collegiality is consistent with the recent changes taking place in physical therapy practice. For example, the use of the prescription by the physician has been questioned and the referral procedure has been accepted by this Association as the only acceptable relationship between co-professional personnel.

It is encouraging that the importance of collegiality is being recognized, however, collegiality is not something which can be legislated. It is dependent upon a number of factors. Among these are the attainment of a minimum common base of knowledge in the academic and clinical areas of the respective fields, the behavioral aspects of interprofessional relationships, and the communication skills.

As a member of the health team, the physical therapist will have a professional relationship with the social worker, the clinical psychologist, the physican, and others whose preparation has been at the graduate level. In this role, he offers services at a disadvantage as stated bluntly by Worthington in 1970:

"If physical therapists are to assume a professional role in addition to other health professionals, including medicine, a closer approach to peer equivalency, mutual respect, and recognition of responsibility is essential. When the majority of practitioners are at the bachelor's degree level, such accomplishment is unlikely.""9

Worthington pointed out further that it might be possible for the preparation of the physical therapist at the undergraduate level to include those aspects of planning, organization of service which have become so important, but not without sacrificing "those very elements of a well-rounded education which enable a physical therapist to develop the peer relationship necessary for communicating and planning with his colleagues in other health professions."

Since the completion of this extensive study which was based on data procured in 1965, it has become apparent that the need for professional physical therapists is not only for numbers, there is a need for more therapists prepared to perceive and solve the problems of the future. Only through a more comparable breadth and depth of educational preparation can the physical therapist realize his potential as a member of the team. Basic physical therapy education at the graduate level can help him fulfill this objective.

Another factor which could influence peer relationships in the health team is a change in the length of time required for completion of medical education. One of the recommendations of the Carnegie Commission on higher education in 1970 was that the time involved in obtaining the M.D. degree should be reduced from four to three years. Evidence that those responsible for medical education have recognized the need for such a change and have initiated this reduction is found in the editorial in the March 1973 issue of the Journal of the American Medical Association. It appears from the figures given that currently one-third of the medical schools either have a three-year program or offer a three-year option; over one-half reserve the final academic year for electives; and approximately one-ninth permit their students to take the fourth year as an internship. The trend toward a decrease in time required for basic medical education could affect peer relationships on the health team. Such a change would place those students completing the basic master's degree program in physical therapy and the graduates of the medical college at a more comparable age level, allow greater similarity in their preparation in the basic and behavioral sciences, and narrow the gap between the time required for completion of the programs. These factors may be the most effective of all in respecting the trend toward collegiality, not only for physical therapists but for the other health professionals with comparable educational levels.

Since the current trend appears to be toward a decrease in the length of time devoted to medical education, the question could well be asked: Why, then, should physical therapists be advocating an increase in the length of time required for education in their field? One answer is that physical therapists are still in the stage of evolution toward a profession. It is important that they have the competence and the status which will permit the interpretation of the field to their co-workers. If they are colleagues of the other health professionals, including physicians, they cannot have this function carried out by physicians or physical therapists' assistants and maintain professional integrity. If the physical therapist fails to assume this responsibility, he will find his profession nibbled away by a host of existing and new types of technicians in the health care field. The physical therapist of the future has need for considerable breadth and depth in his professional education.

COST

The cost of the basic master's degree program to the student and to the institution, including both time and financial outlay, is a factor which cannot be overlooked. In an era when rapid devaluation of the dollar and the doubtful future of both federal and private educational and scholarship grants to schools are of great concern, the importance of cost control becomes evident.

First, however, it should be noted that, in the Worthington study of basic physical therapy education, the fact was brought out that a number of the baccalaureate programs exceeded the traditional four academic years of study by four to eight months. Of greater importance, the postbaccalaureate certificate programs exceeded the four years by a maximum of fifteen to sixteen months, bringing the...
total time for preparation for the practice of physical therapy in some schools to five and one-half academic years. The cost differential for the student between such a certificate program and the basic master's program is minimal.

From the standpoint of the institution, the cost is greater for the graduate program in the area of depth of preparation required of the faculty and the limitation on the number of students that can be enrolled at the advanced level. A factor that has affected a reduction of cost to the institutions offering the master's program, however, has been the use of university resources outside the physical therapy schools. Through the growth of schools for the allied health professions in the past ten years, courses have been developed such as those in biostatistics, health administration, and clinical specialties for all students in these fields. Larger numbers of students may be enrolled in these basic fundamental courses, and seminars can be used by the physical therapy division to integrate the material offered with that needed for the profession.

The high level of interest in professional education at the graduate level among young people seeking a career in the field of physical therapy has been evidenced by the number of applications for the basic master's degree programs. From information obtained from the three private universities, Duke, Southern California, and Stanford, where student expenditures exceed those in the public institutions, it was concluded that applications for the continued full-time enrollees in all these totaled approximately seven hundred. A name by name check was not made to determine the overlap in applications. Since the schools were divided between the east and west coasts, one can reasonably estimate that at least four hundred persons applied for the total of sixty openings in the three schools.

"The tradition of requiring experience before graduate study in physical therapy has taken years to overcome..."

As can be seen, the ratio is one admission to seven applicants. No doubt, many of the other physical therapy schools can submit similar or higher figures, but it is evident that the cost of the basic two-year graduate program at the private universities has not deterred young people from attempting to gain admission.

PATTERNS OF MASTER'S BASIC PHYSICAL THERAPY EDUCATION

The traditional patterns of undergraduate and graduate education in physical therapy have had a direct effect on the development of basic physical therapy education at the graduate level. Undergraduate education in the United States has been patterned after the English system which is based on a broad generalist approach. The goal has been to produce a well-educated person, a man of letters. Graduate education in this country, however, has followed the German system of training students in particular and distinctly defined bodies of knowledge. The primary objective of graduate education at the doctoral level is research training. In contrast, the master's degree programs have different goals and are not, and never have been, for the specific purpose of preparing students for research. A major objective of these programs is in the application of knowledge duties dictated by the subdisciplines of the field. Another objective has been the acquisition of knowledge for professional education as typified, for example, in a number of the allied fields.

Master's degree programs, in general, have been regarded as terminal for certain career areas, preparation for secondary or junior college teaching, apprenticeship for study in the doctoral level, or a consolation prize for those students who, for one reason or another, are unable to complete the doctoral program. These interpretations have led to attitudes of indifference toward the degree in many major universities. Because of the recent nationwide decline in demand for doctoral training and the gloomy predictions for the future demand for this degree, however, these attitudes appear to be changing. The disincentive to this change, for example, in the 1972 study of graduate education at Stanford University, a large section was devoted to alternative programs to the doctorate and the development of new master's degree curricula. The following statements in this study were refreshing:

We believe that the social utility of Master's education is in many cases at least comparable to that of Ph.D. programs. In the broader terms, we are speaking here of training people for the positions from which the results of our basic research are applied to solving problems, meeting pressing human needs, and enriching the quality of life. Without quality education and training at this level, there will be a serious gap between what we as a society know how to do and what we are actually doing.

The authors suggest that the opportunities for master's education should be greatly increased throughout the university in number and variety. They interpret the concept that variety is important at this level of education as it assures students of flexibility and departments of an opportunity to organize programs around their greatest strengths.

Variety and flexibility are illustrated in five programs of basic physical therapy education which offer the students the opportunity to obtain a master's degree. The first, called the graduate-transfer or 3-2 program, allows completion of the curriculum in less time than is required in the standard plan. Students who have attained an acceptable grade average during the years they have completed prerequisite courses at the end of the junior year may transfer to the graduate division. After completion of the two-year program they receive co-terminal degrees, the bachelor's and the master's.

The provision for admission to the graduate-transfer program has been available in a number of fields at many universities. Recently the program has been introduced in physical therapy at Stanford University, although no students have been accepted to date. This type of program is not new to Stanford. Both the engineering and history departments use this plan leading to the award of co-terminal degrees.

The decreased time allotment for general undergraduate education is of concern. The attainment of the philosophical objective of the master's degree, and the reduction in cost, however, might outweigh the abbreviation of the time for general education.

A second type of program for basic physical therapy education at the master's level allows interrupted study. Students have the option of the end of two months of either continuing study for the master's degree or being certified and withdrawing for practice for a period of not more than two years before reentry. This program provides for those students who find it necessary to earn funds for their final year of study.

The first question that arises concerning the option of interrupted study is, "How long will the student return to complete the program after the period of practice?" In the same study of graduate education at Stanford mentioned previously, this problem was recognized and a recommendation was made that the University adopt general, departmentally administered provisions for interrupted study. Departments were encouraged to reach mutually binding agreements with students who request a leave of absence so that both the student and the department will know where they stand. The strength of a binding agreement appears questionable, other than for the refusal of reentry after a fixed period of time. A decisive factor could be the understanding by the student before admission that, if he interrupts his study, he must return or his professional preparation will be incomplete. Coupled with this understanding, the assistance of the faculty in procuring interim employment should increase reentry.

A third type of program that involves possible interrupted study is now under consideration at a private university. A postbaccalaureate certificate may be offered. At the end of four quarters, the student may enroll in the master's degree program or be certified. The leave for practice with reentry to the university left open. Here the emphasis is placed on the certificate program as preparation for practice; study at the master's level is an additional, rather than an integral, part of basic preparation.

A fourth type of program, which is now offered in the field of physical therapy, allows students to enroll in a two-year basic master's curriculum. At the end of the first year, those students who have a sufficient average continue for the advanced degree. The remainder who have a satisfactory record are
"We need tomorrow now—the master’s degree for physical therapy education."

certified and leave for practice without the possibility of reentry. In essence, this is another compromise with the concept that a graduate program should be the basis for physical therapy education.

All four of these programs have one element in common—entering students are offered the opportunity for continuity in their progress toward the master’s degree. The customary requirement of a two-year period of practice as a physical therapist before becoming a candidate for the degree has been eliminated. The tradition of requiring experience before graduate study in physical therapy has taken years to overcome, although it is out of date, for example, in medicine. The graduating medical student is no longer advised to obtain experience in general practice before further study as a resident. Emphasis is now placed on continuity. Otherwise, too often the practitioner does not return for advanced work. The same is true in physical therapy, as a number of follow-up studies have indicated. For example, Conner’s figures from the 1972 survey of 224 graduates of a midwestern university during a ten-year period show that only 17 (10%) of the 164 who responded had received an advanced degree or were working toward one in the interim since completion of an undergraduate program in physical therapy.1

SUMMARY

It has been noted that basic professional education in physical therapy at the graduate level is an important step in the evolutionary process which began in this country with apprenticeship training before World War I and that there is ample justification for these programs. Socioeconomic changes are bringing about a demand for more and better services and the shift in the concept of medical care to health care is placing increased emphasis on the provision of the full range of patient services. Current and developing patterns in the delivery of health care are adding new responsibilities for the physical therapist.

Emphasis has been placed on the importance of the peer relationships within the health team and the need for a new and expanded ethic that recognizes the intricate web of shared responsibilities.

The social utility of the master’s degree programs has been reviewed and several factors in cost have been presented. Opportunities for research, mobility, and continuity in the graduate program for physical therapy education have been illustrated in a review of four types of curricula that offer the entering student alternatives for obtaining the master’s degree.

All the facts presented demonstrate that there is an immediate need for the end product: the physical therapist with greater breadth and depth of educational preparation. We need tomorrow now—the master’s degree for physical therapy education.

Before I leave you, you must speak again of Mary McMillan. Those of us who were privileged to know her recall vividly her dedication, her deep personal involvement, her sense of responsibility to others and to the profession which claimed her boundless energies. Although she was an idealist, Miss McMillan was pragmatic. For her, tomorrow was embodied in the now. Perhaps a story that she told will best illustrate her ability to seize reality.

World War II erupted when Miss McMillan was on her way home from China where she had been teaching for a number of years. She reached Manila, and, when the bombardment of the city began, all Americans were sent for safety to the Santo Tomas University compound which later became their prison for many months.

On the way to Santo Tomas, Mary, along with several of her doctors and nurses friends, raced to an American hospital and loaded a track with medical supplies and surgical equipment. Upon arrival at the university, they set up a surgical unit in the compound, and the doctors and nurses immediately began to care for the many who had been injured in the bombardment. Surgery demanded their total concentration. Mary, meanwhile, was stationed just outside to select, from the lines of refugees flooding by, those whose injuries demanded immediate care.

Over the intervening years, I have pictured that steady figure moving purposefully among the injured, bending occasionally to speak quietly, then directing into the unit those who were in desperate need, guiding aside those whom she believed could safely wait, and, as she expressed it, those for whom surgery appeared to be too late.

Few of us here will ever be called upon to make such frightening decisions. If we must assume the awesome weight of like responsibilities, will we, I wonder, be able to say as did Mary McMillan, "There was a job to be done, and I was there."

We, too, have a responsibility to accept the now. Are we ready to be accountable to ourselves and to our profession? I don’t believe we can wait for tomorrow. Mary McMillan said it for us: "There was a job to be done, and I was there." That, my friends, is what professionalism is all about.

REFERENCES
The Tenth Mary McMillan Lecture
presented
June 17, 1975
Anaheim, California
by
Helen J. Hislop, PhD, PT, FAPTA

Helen J. Hislop was the tenth recipient of the Mary McMillan Lecture Award in 1975. She was graduated from Central College in Iowa with a Bachelor of Arts degree, and received her physical therapy certificate, master's degree, and doctorate from the University of Iowa. Dr. Hislop has been the editor of Physical Therapy. She has received the Golden Pen Award and has also served on the Research Committee. Among her many other honors are the Distinguished Service Award from the Arthritis Foundation, the McMillan Lectureship from Case Western Reserve University, and becoming a Fellow of Central College. Dr. Hislop is the author of the APTA Style Manual and numerous Journal articles.
Tenth Mary McMillan Lecture

The Not-So-Impossible Dream

My overriding dream is that physical therapy shall achieve greatness as a profession.

HELEN J. HILGEP, Ph.D.

Since the inauguration of this lecture a dozen years ago, there have been scholarly critiques of physical therapy history, philosophy, education, and therapeutics. The lecturers have been physical therapists who have placed their indelible mark on this profession—those who have proudly received the torch passed on by Mary McMillan and kept its flame burning brightly for the future. Thus, I am filled with gratitude, responsibility, and humility. If you insist I find a word for it, I call—paralysis. But I am fortified also by this challenge, this opportunity, and this honor.

I accepted the challenge because of the debt I owe to this Association for the fullness of life it has given me, and in respect and honor to you, my associates, who handed me the torch. In selecting the title for this address, "The Not-So-Impossible Dream," I reflected on a vision I have for a great profession—one unified by shared values, shared beliefs, and shared attitudes. These shared experiences and dreams are what give a profession its tone, its fiber, its moral style, its determination to exist, and its capacity to endure.

Thomas Jefferson said, "Every man should have a dream. Every dream should have a purpose." My purpose in sharing a dream with you is to be found in these paraphrased words of Pericles speaking to the Athenians:

Fix your eyes on the greatness of your profession as you have it before you day by day, fall in love with her; and when you feel her great, remember that her greatness was won by people with courage, with knowledge of their duty, and with a vision that all things are possible.

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The lecture was delivered at the sixth annual conference of the American Physical Therapy Association, Anaheim, CA, June 15-20, 1975.

Volume 55 / Number 10, October 1975

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IDENTITY CRISIS

Physical therapy today is in the midst of a crisis of identity; it is, indeed, a profession in search of an identity. During fifty years, we have passed quickly through an age of tolerance, to a golden age, and most recently to an age of survival. Despite all our recognition, despite all our acceptance, despite all our disclaimers, we have not arrived and our survival is not assured.

Physical therapy needs to appreciate how essential our distinction is to survival. Over five generations, we seem to have forgotten why our founders sought recognition. A society, a profession without a sense of the past for which it has respect, lacks identity and regard for the future.

This, of all times in our history, is a time for strong identification. We must all ask ourselves in our attempt to develop in multiple directions we have assumed a cloak of uncertainty; if in our rhetoric we have transcended our ideals; and if in our desire for acceptance we have become victims of self-made definition.

Who, my friends, if not we ourselves, is to speak for the spirit and essence of physical therapy? Establishing a strong identity is not a question of restriction. Rather, it is a matter of who is to say what we can do, what we will do, and what we must do.

The intellect is vagabond and our present concept of councilsirnism. We neglect the history of ideas and the need for identity at our peril. If we deny them, we may be ingenuous technocrats, but we are also ingenuous philo-
sophers and guilty of intellectual treason.

I hope you will pardon me if I hear down hard on the adrenal glands of this profession, but we have something worth fighting for and I hope to stir up your concern. The generation growing up in physical therapy needs some of the sharp edges and skin of this profession. And we will do this.

There are outside forces which are working to retard our progress, even toward our destruction, but these external forces have little penetration power in themselves. It is our inner fragility, our structure, our lack of self-stability, our need, in the words of Pope, "We have met the enemy, and they are us." The reason for physical therapy's vulnerability is that it is relatively defenseless against the leviathan of modern science. Physical therapy has a soft underbelly because its science is in disarray. This disarray leaves it open to attack against its inadequate attacks from medicine, attacks from government, challenges from fiscal agencies, and questions from the public.

But, most of all, physical therapy is vulnerable because somewhere along the way it has lost the sense of its elemental identity.

Physical therapy is on the defensive and it cannot speak with one voice because of the difficulty stemming from its failure to define and agree upon what physical therapy is.

What are the fundamental and unique concepts of this discipline? What are physical therapists? Who are they? What do they do? How do they do it? What results are expected from whatever it is they do?

Physical therapy has yet to document its own conviction about its value to total health care and to demonstrate its commitment to develop, teach, and apply its scientific principles as effectively as possible.

The Genetic Forces of Identity

There are two cardinal forces that create the genetic heritage of a group, that imprint its quintessence in the archives of knowledge—the forces which act ultimately to create the identity of the physical therapist.

The first is centrifugal or counterclockwise force which arises from the basic assumptions and purposes of the group. The centrifugal force in physical therapy springs from a people-helping desire linked with a motivation to make the human body to achieve more acceptable modes of function. The science and humanism we employ to achieve our ends are the vectors of this force, and magnitude of either vector may be large or small.

But as we attempt to see ourselves, we are at the same time viewed by our fellowman. This gives rise to the centripetal or converging force that acts upon us. Its vectors are our contributions to the individual patient and to the welfare of man. It arises in the anthropocentric in which we conduct the affairs and can reflect either warm winds of approbation or chilly blasts of rejection. We cannot escape this centripetal force for it is the respect given by those we serve for that which we are.

Physical therapy is the reasoned application of science to warm and needing human beings. Or it is nothing. The purpose of science in physical therapy is not often understood and no coherent philosophical statement exists to guide the growth of the profession. In the spirit of dialecticism, therefore, I may present several premises upon which I believe such a philosophy can be founded.

The basic postulates are these:

1. Pathokinesiology is the distinguishing clinical science of physical therapy. It is the study of anatomy and physiology as they relate to abnormal human movement. It presents a theoretical base broad enough to afford a national explanation of human motion disorders. Physical therapy in this context contains a body of scientific and empirical thought that can be applied to the treatment of a wide variety of disorders.

2. Physical therapy can claim the unique privilege of placing its focus in health and disease in its proper scientific focus and perspective.

WHAT IS PHYSICAL THERAPY?

Physical therapy is knowledge. Physical therapy is an applied science. Physical therapy is the reasoned application of science to warm and needing human beings. Or it is nothing. The purpose of science in physical therapy is not often understood and no coherent philosophical statement exists to guide the growth of the profession. In the spirit of dialecticism, therefore, I may present several premises upon which I believe such a philosophy can be founded.

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Fig. 1. The hierarchy of systems for study and analysis of human structure and function as they relate to physical therapy.

We can use these two forces—one which represents the profession and the other the function of the profession—to carve a conceptual framework for physical therapy.

It is time for physical therapy to lay claim to the title of profession. It is time for physical therapy to decide whether it wants to develop to the fullest those distinctive contributions for which it has been recognized or whether to accept secondary status as the ultimate fulfillment of its purposes.

To paraphrase Lewis Carroll:

The time has come, it may be said to-day, of T.F.'s role of life and limb, and hearts and minds, of sciences and goals.

I present these views as provisional, as your interpretations should be. Our equity in ideas should be in their continued refinement and not in their eternal verity. For truth changes as new knowledge sheds light on old shadows.

So we address ourselves to the question, "What is physical therapy?"

"What is physical therapy?"
Conveniently, each level in the hierarchy coincides with one of the basic biological sciences, which provides a solid foundation for its adaptation in, and contribution to, physical therapy (Fig. 2).

In applying the principles of motion to this natural system, it becomes obvious that all of the structures express their function in motion (Fig. 3). Some of the more common expressions of this motion would be Brownian movement at the subcellular level, blood flow at the tissue level, reflexes or postural adaptation at the system level, and purposeful work or play at the person level. When motion is altered at any level, homeostasis is disrupted and adaptations must take place to restore some degree of balance. The alterations in motion may be hypertrophic, hypotrophic, or externally restrained and static. If the disruption is at the higher levels, signs of disease or incoordination ensue at lower levels. If motion ceases at lower levels, the result might be destruction of a function or even death of the person. Thus, there are many degrees of perturbation, and subsequent adaptation may be total, partial, or nonexistent.

Motion is a concept that must be viewed beyond the purposeful contractions of skeletal muscle initiated by a complex nervous system. Within this concept of biological motion we can construct a paradigm for physical therapy.

A Model of Physical Therapy

Conceptually, physical therapy by virtue of its heritage, science, and its available technology is called to intervene when a perturbing force or a potential disturbance manifests itself in a motion disorder that is amenable to externally applied therapy. This externally applied therapy is, for the most part, some form of controlled exercise or stimulus to induce movement; or it may be a means to ease the perturbing force by judicious application of physical agents, such as those which increase blood flow or promote gas and fluid exchange.

The purpose of physical therapy is to restore motion homeostasis to the person or his subsystems or to enhance the adaptive capacities of the organism to permanent impairment or loss. The realm of physical therapy in this hierarchical system is between the motion disruptions that occur at a tissue level and those that manifest themselves in a most complex manner at the person level (Fig. 4).

The physical therapist may have an influence on the family at the upper level and on the cells at the lower level, but only through either the person or the tissue—possessing no unique tools for intervention at these levels.

Humanism is an intrinsic attribute of therapy, and as such it is an intrinsic element of physical therapy (Fig. 5). Humanism places highest value on the person level of the hierarchy, and physical therapists, in common with other health practitioners, must retain a holistic view of the patient, even when their therapeutic efforts are directed at a lower level of the natural system.

Examples of system perturbations, their effect, and the point of therapeutic intervention may be drawn using vectors in one direction to display the forces of disease or injury and vectors in the countervailing direction to display the forces of therapy (Fig. 6). Only the most simple influences are illustrated in the Figure, but one should keep in mind that changes at one level can influence alterations at all levels, and what may be external to the tissue is internal to the organ, and so forth. The perturbing force may be very precise to one hierarchical level, such as a fracture, or it may be very broad, such as the external trauma of a motorcycle accident.

A burn is an example of tissue destruction which may have profound effects at all levels (Fig. 6). Wide tissue destruction causes endocrine responses which give rise to such stress signs as gastric ulcers. Interruption of the
normal functioning of the skin leads to scarring, contractures, and body fluid imbalance. At the person level, there will be some decrease or loss of function of the part or of the person as a whole. Emotional responses are reflected at the person level and these, in turn, have a disrupting influence on the dynamics of the family and even beyond.

Intervention by the physical therapist occurs at three specific levels. Debridement and all that goes with it is used to promote healing of tissues. Other than adding the salutary healing, the therapist has no specific tool to use at the organ level, but he can use techniques for positioning and splinting to reduce the sequelae of contractures and prevent deformity or reduce edema. The application of a variety of forms of active exercise—active implying the person's consent and cooperation and, therefore, involving his conduct—will counteract the effects of immobility, both general and specific.

In the example of a coronary thrombosis (Fig. 7) with its myocaridal infarction and decreased cardiac output, the patient suffers from disruption of his normal energy supply and is made further inactive by angina and fear.

The only level where the physical therapist has influence is through an exercise program carefully titrated to match the patient's physiologic resources. An example of perturbation at the systems level would be the loss to the musculoskeletal system of a limb (Fig. 8). The resultant decrease in locomotor ability is managed by limb replacement with a prosthesis and gait training and its accompanying exercise program at the person level.

Physical therapy, then, may be viewed as a pyramidal structure which has its foundations in social and cultural needs (Fig. 9). The people who are attracted to physical therapy have a deep caring for people and, beyond that, an altruistic drive for service to people.

In common with all health professions, physical therapy also has a scientific foundation which springs from the needs of the sick and the injured. Our particular foundation does not include all of the basic sciences but it does draw significantly from several, including anatomy, physiology, pathology, biochemistry, biophysics, and psychology.

Each health profession came into being to meet a special social need. That need, or the purpose of the professional discipline, should be identified. Physical therapy was founded to provide restorative services to persons who suffer physically handicapping conditions. The wellspring of our origins are rooted in physical education, for that discipline gave us our founders, and from their knowledge of body movement and exercise grew the applications of exercise to pathological conditions; thus, again, the purpose we serve is to restore motion homeostasis.

So, then, the stage is set to place the science that is physical therapy in our model. We may term this science pathokinesiology to distinguish it from kinesiology, which is the science of normal human motion. The components of the science derive from several anatomical and
physiological substrates including patho-

mimetics, biomechanics, neurophysiology, and ex-

ergetic physiology.

At the apex of our model is the clinical

application of our science—therapeutic exercise.

This concept emphasizes our uniqueness and is

not intended to encompass more peripheral,

but important, contributions to patient care.

By definition, then, physical therapy is a

health profession that emphasizes the sciences of

pathokinesiology and the application of therapeu-

tic exercise for the prevention, evaluation,

and treatment of disorders of human

motion.

Fragility of Clinical Science

Where physical therapy is fragile is in lack of

precision of its intervention procedures. There

are no specific answers to the what, where,

how, when, how much, Baumgarten put it succinctly

in an article in the June 1975 issue of Physical

Therapy when he said science is not the virtue

of physical therapy but rather its virtue lies in

an intensive interpersonal relationship with

individual patients. Thus, my friends, is not

enough for our survival.

After fifty years, the science of physical

therapy is entering its infancy. A great diffi-

culty in developing the clinical science of

physical therapy is that we treat individual

patients, each of whom is made up of situations

which are unique and, therefore, appear incom-

parable with the generalizations demanded by

science.

In reality, however, humans have common

fundamental traits and they share experiences,

works, and life styles which make statistically

predictable responses possible. This makes

clinical science possible. The time has come to

give to the study of the responses of the living

human being the same dignity and support

given to the science of parts, animals, and pets

where we have to.

The determination of the profession to retain

a viable place in the health care system with

a vigorous economic base compatible with the

nation's resources, and to improve the quality

of patient care must, for the indefinite future,

necessitate a large, continuing research and
development enterprise.

This enterprise will not be taken on blind

faith. Everything we do, everything we propose

will be scrutinized as never before. To convince

others of our aptitude, we must prove to
courselves that our methods work. Many

wondrous efforts a result of sound method or
do personality and human interaction explain

away or create patient improvement?

We are confronted on all sides with therapeu-
tic endeavors which mix scientific fact with

quasi-scientific hypothesis. Others have become

quick to condemn us—and they have justifica-
tion because we have not demonstrated rigor

careful studies of unorthodox concepts—in

fact, we perpetuate the attitude of condemna-
tion because in our naive eagerness, we permit

the promulgation of untruths or part truths and

condone homoeopathy and imposture where we

admit we do not understand.

I suspect that we cannot continue to count

on help from our neighbors in other disciplines.

It is going to be up to us to manage this science

of ours by exploration and hard thinking.

There are no scholarly professions today

which do not have doctoral programs in their

own discipline. The time is now to support
docent education in pathokinesiology or

physical therapy. In physical therapy, the

advances in our field of endeavor are being

made, not by us but by others, and in this state

we are reduced to being mental pickpockets

simply because we do not have any programs

to develop our own science.

I have been pointed out to us by Worthingham in her study of basic

education in physical therapy, 1966 to

1969. That study, which could have had the

impact of a latter-day Flexner report, should

have sparked an additional revolution in

physical therapy. Instead, bits and pieces

had provoked the forces of dross evolution.

I am an optimist about what all of this means for

us. I believe that we have the power to

shape the future in ways that will vastly

improve our condition. On the other hand, we

also have the power to destroy our profession

as we know it by wandering without a strong

identity.

The value of the physical therapy to the total

health care of the public can be measured only

within its value system. Only when the science

proclaimed will physical therapy cease to be passive, adjunctive,

elective, or an arena of last resort for the

patient.

If we will have the conviction and the concomitant claims and for all what

physical therapy is and then act on it, the

centric forces generated will cast an ever-

lengthening shadow across the pages of human

history.

The Centrifugal Forces of Identity

The centrifugal forces which cast the char-

acter of physical therapy arise from the value

systems of the society we serve. Thus, to assess

the value of professional activities, one can

propose criteria that arise from outside the

profession—that is, from the judgments the

cities make regarding a professional discipline.

Such external criteria ask of any given profes-
sional activity that it have meaning and

relevance in three spheres:

1. Scientific merit—which judges the degree to

which the discipline understands its role and

achieves its purpose

2. Humanistic merit—which judges the relation-

ship between the therapist and the patient

3. Social merit—which judges whether the

services provided aid social goals

My dream, simply put, is that physical

therapy will meet a secure and valued role in

our society when measured against these cri-

ters.

What Must We Do?

1. First we must set up absolute standards of

clinical performance rather than remain lost in

the morass of rhetoric. To be sure, such

standards are good only for today and not

forever, but they result in the confidence of man

which is necessary for the professional to

achieve a high degree of success. 

2. We must produce scholars in human patho-

kinesiology. Not every therapist can become

a scholar in the true sense, but every

therapist can be imbued with an understand-

ing of science as it is applied to physical

therapy.

If the capacity for logical thought and

scientific values is not acquired early, there is

little hope such qualities will surface later. This

lack already has given rise to serious implica-

tions:

• Essential growth dependent upon accurate

analysis of patient needs is not occurring.

• The practitioner is more artisan than scien-

tist, and only a scientist can integrate

successfully the multiple variables expressed

by an impaired human being.

Do not think I am crowning science as the

only important value. But, those in physical

therapy who do not comprehend the advances

of science seem to fall back on the convention

that the scientist is incapable of sympathy and

compasion— as if scientific accuracy and hu-

manism were mutually exclusive.

Sensitivity toward people is not blunted

by science. Science is not inhumane. The

scientist and the humanist must complement

each other in the same individual to balance the

equation for excellence in care.

To weave a fresh fabric for each new patient

with the warp of man's primal empathy and the

woof of man's intellectual understanding—the

is the final and permanent art of physical

therapy—its apotheosis.

3. We must elevate the role of the clinician.

Physical therapy in its essence is an inter-

action between two human beings in a

cybernetic loop—physically, psychologically,

and psychologically. Success in the clinic

depends on constant interaction between

the clinician, patient, environment, and ever-

changing requirements. It depends on the

ability of the clinician to assess the changing

conditions and to apply his science, which is

exact and demanding, through the meticulous practice and persistent

study.

To clinician, treatment is not only impor-

tant; it is paramount. The care of the patient is

the ultimate, specific act that characterizes a

clinician. It differentiates him from all others.

Its obligation is transmitted as the heritage of

the profession. Its performance is his unique

contribution to mankind. If treatment is un-

important or takes a secondary place, a
clinician has no useful purpose for his existence. Just as the art of war leads to success, so may success lead away from the endeavor which conferred it. Most clinicians eventually are bogged down with the by-products of their own successes. They are given large departments which must be administered; invitations come for lectures; more and more visitors are received; correspondence grows voluminous; meetings replace care of the patient. Eventually nothing is left but introspection. Clinical skills are fragile and they must be practiced to be preserved. Those clinicians who elect to become involved in other endeavors must exercise great care to avoid entrapment of the patient care be relegated to a position where the patient becomes the forgotten man.

For the physical therapist who wishes to remain a career clinician there should be incentives, economic and otherwise, to reward his proficiency and contribution to patient care, which is what physical therapy is all about. The advent of the physical therapist assistant to take care of less demanding procedures frees the clinician to direct his attention to the development of our clinical science.

If you want a bee to make honey you do not issue directives and protocols on carbohydrate metabolism and solar navigation. You put him together with other bees. If the air is right, the season will come in its own season, like pure honey.

Clinical Specialization

The momentous and great advances in medical science of recent years have had an impact upon us and have introduced changes that performance should modify our practice. It is only natural that an explosion of knowledge should outstrip the capacity of any practitioner to encompass the entire field. The need for some kind of specialization is upon us because society has served fair notice that it anticipates more complete and higher quality health services. To respond, physical therapy must come out of its long disracte and recognize new modes and new methods to strengthen the profession. It is my dream that this profession embark upon structured programs to train clinical specialists, but with caution and with realization that our world of knowledge is so small in relation to our universe of ignorance. The strength of this innovation will depend upon proof of clinical competence. Specialization should not be a drain on the grass roots of general service. It should transfer into the commonplace realistic and vital promises of higher quality patient care. The pattern of specialization should encompass broad areas of practice so that knowledge is not partitioned to the benefit of psychiatry and countless clinical dilemmas.

In advocating specialization as an option in clinical practice I am aware of its problems. The major criticism levelled against specialization is that by trying to solve complexity it creates some degree of isolation. The corpus of knowledge keeps breaking in ever smaller subdivisions, each tended by persons, who, unless offsetting influences are exerted, may become more and more unaware of other efforts in their own profession. The wisest specialists will, of course, never lose sight of the bewildering complexity of man. In disease or health, man cannot be understood piecemeal, even if he has to be studied that way.

Specialization is one idea whose time has come for the clinician. The kind of clinical practice I envision for the specialist cannot be ordered or commanded. The best we can do is recognize it and encourage it in the sensitive few-to prevent its inhibition by too much teaching, its submission by too many dogmas, its extinction by too much ritual.

The clinical specialist should be the clinical scientist and demonstrate that clinical science and its methods stand successfully over all others in the advancement of knowledge. Indeed, it is my dream that clinical specialists, born in an era of scientific thinking, trained in science, and blessed with compassion will begin to deal in clinical therapy with questions that long have challenged the human intellect and the human spirit.

Strategy for Survival

The place of physical therapy is in the stream of patient care, not on its banks. The role of the clinician represents a challenge that will, of necessity, be met in one fashion or another, and it can be better met if we face it forthrightly. It is old knowledge in Scotland that the sheep who stand on a rise of ground and face into the storm survive, while those which huddle together for warmth in the low places frequently are suffocated in the snowdrifts.

What will happen to us, I wonder, if we deny the value of the primary clinician, if we discard our identification by denying use of skills which take years to acquire through long and intimate contact with patients and countless clinical dilemmas.

Physical therapy is in deeper trouble than most realize, for we have no new strategies for mending our ways, for adapting to change—only tactics aimed at simple survival.

Unless the best trained of our constituency are willing, no, eager, to retain their clinical orientation in direct care of the patient, it is difficult to see from whence the push toward the steady improvement of quality will come. That, indeed, would be the ultimate tragedy, for if our glimpse of the future finds us as powerless as we are today to answer the clinical questions, I am afraid that there will be no future. Only because there is hope for the eventual improvement of quality can we retain options for the ultimate effectiveness of physical therapy.

Why will we survive? How will we survive? Just by providing a unique and distinct service to the people—service not equaled in its excellence, breadth, or comprehensiveness by any other group.

We have a choice. Either we assume control of the science of physical therapy or we fail to take that responsibility and see our profession become increasingly irrelevant, redundant, and finally obsolete.

Perhaps I can best illustrate my remarks by this fable from an unknown source. A cyanide mix had to be a wise reason to make one, and said, "You who are so wise, I ask one question. I have a bird by my hand. Tell me, is the bird dead or alive?" The philosopher thought for a moment. "If I say to him that it is dead, the bird will fly away; but if I say that it is alive, he will clench his flat, cruel, the life from the bird; open his hand and show me a dead bird." So the wise man said to the cynic, "You have a bird in your hand. You ask me if it is dead or alive; I answer, it is as you will.

The future of physical therapy is in your hands. To each mind is offered its choice between ideas and somnolence, its choice between questing and resting. Take which you please. You can never have both.

GREATNESS

My overriding dream is that physical therapy shall achieve greatness as a profession.

Our aims may be noble, our virtues admirable, our aims minimal, and our practice moral, but without the saving merit of a habitual vision of greatness, its attainment is impossible. If we do not achieve greatness, what do we or what we believe does not matter. We shall be no more noticed than sand dropped and buried with more of it at the bottom of the hourglass of time.

Physical therapy stands at what could be the beginning of a new era; an era in which science is our quest and humaneness our expression; an era in which physical therapy can constitute a bridge over which science and man's dignity maintain contact.

The issue is clear: if greatness is a goal, it will take great thinking and consummate honesty to achieve it.

I have spoken to the crisis of identity with which we are afflicted. Now it is our task to reconstitute our current and explosive force that others do not credit to us.

Our distinctive recognition as a profession is not the contribution of a single measure but a concept of health care, the touchstones of which is the identifiable clinical science of patho-kinesiology.

Physical therapy cannot achieve its best purpose until that clinical science is elevated to prominence in that purpose. In turn, we must elevate the clinician to a level of primacy. There is no more important task today than to revitalize the profession with new knowledge, new tools, a strong, defensible identity so that Longfellow's words might describe him fittingly, "Staunch and strong, a goodly vessel that may with wave and whirlwind wrestle." Our end is our own to be won by our own endeavor and held on our own terms. The reality of our tomorrow will depend very much
upon the quality of what you think on, for as Marcus Aurelius said: the soul of a profession is tinged with the color and complexion of its thought.

Be scientific but not callous
Be humanitarian but not soft
Be independent but not isolated
Be professional but not narrow
Be judgmental but not dogmatic
Be vocal but speak with one voice
Be dreamers but not drifters.

For
We are the music makers
and we are the dreamers of dreams . . .
Yet we are the movers and shakers
of the world forever, it seems.9

To dream the impossible dream? To fight the unbeatable foe? No, my friends.

We will be great.
This is the real impossible dream.

REFERENCES

Eleanor Carlin was the eleventh recipient of the Mary McMillan Lecture Award in 1976. She was graduated from Beaver College and took the physical therapy program at Walter Reed Army Hospital in Washington, DC. Dr. Carlin was the first woman in the US armed forces appointed to the rank of Brigadier General. She was head of the physical therapy program at the University of Pennsylvania. She has received the Distinguished Daughters of Pennsylvania Award, the Lindback Foundation Award, and an honorary degree from Beaver College.
Eleventh Mary McMillan Lecture

The Revolutionary Spirit

ELEANOR J. CARLIN, DSc

The American citizen has been, all the days of his existence, a living paradox. Deep in our hearts and minds we have all nurtured a distaste and a dislike for the idea and the concept of the use of force called “revolution.” We pronounce such tactics, when used in other parts of the world, as immature, dangerous, and self-seeking. We boastfully point to our electoral system of politics and smugly disdain government by force. And this is the paradox—that this country, which does indeed stand in the world as an example of good judgment and reason, was itself created by one of the most heretical, bloody, subversive, and astounding revolutions in the history of the world. This paradox gives us reason to reexamine the meaning and concept of the word “revolutionary” and to focus not so much on the methods of revolution as on the reasons for daring to attempt to change the course of life.

Our forefathers, whose courage, convictions, and determination are being celebrated in this Bicentennial Year, were endowed with a revolutionary spirit. Daring to believe in the principles of freedom, they were willing to endure a revolution to provide for all the world an example of a new concept of man’s worth and dignity—a concept that to this day has not been equalled.

By so daring, our forefathers set in motion ideas and principles which have, to this day, been the reasons man would dare to question established ways of life, to break with tradition when he could see a reason, and to dare to explore and to investigate new ideas and courses of action. They left us all a priceless heritage of willingness and courage to act daringly and decisively to accomplish those things our convictions tell us must and can be done.

Foundations of APTA

This revolutionary spirit has been an unbroken thread in the fabric of our profession from the very beginning. In the first decade of the twentieth century, women were not customary members of the working society. True, certain professions were deemed suitable for women, such as school teaching or nursing, but usually women worked at these jobs because of necessity, not choice. It was rather daring then for any woman not only to elect to pursue a profession but to confront her world with the audacity of establishing a
new profession and what is more, to do this in a new nation that totally male world of medicine. But this was precisely what our founders did, and our professional revolutionaries fired their first gun.

An interesting parallel exists here between the embryonic APTA and the birth of our country. Unlike many revolts chronicled in history, our founding fathers did more than disestablish the prevailing system of government. With careful deliberation they set about planning for the establishment of a new system long before there was any real hope of success. The First Continental Congress met in Philadelphia in 1774, a full year before the famous shots were heard at Lexington and Concord. The Second Continental Congress, which produced the Declaration of Independence, met just two years later.

The parallel I wish to draw is the similar wisdom and foresight demonstrated by Mary McMillan and her associates in preparing and planning for the future. Not content with merely functioning for themselves in their own time, they saw a vision of the years ahead and wisely predicted what the needs and demands of their profession in that distant time would be. Through their concern with the level of education, professional skill, predicted growth, and importance of ethical behavior, they laid us a legacy of sound principles upon which we have built well and truly through the years.

Just how sound these principles were is easily recognized when we look at words written over fifty years ago and find them contemporary. The first constitution of the APTA declared that the purpose of this fledgling Association was: to establish and maintain a professional and scientific standard for those engaged in the profession of physical therapists; to increase the efficiency among its members by encouraging them in advanced study; to distribute information by the distribution of medical literature and articles of professional interest; to make available efficiently trained women to the medical profession, and to sustain social fellowship and intercourse upon grounds of mutual interest.

The first statement and each subsequent addition to the APTA’s standards is a testament to the foresight of our founders. The need for a code of ethics is a reflection of their desire for a profession that would be held in high esteem. The call to maintain a regular and consistent standard of care is a clear indication of their belief in the importance of quality care. The emphasis on the importance of continuing education is a reflection of their recognition of the need for practitioners to keep up with the latest developments in the field.

In conclusion, the APTA’s history is one of dedication and commitment to the betterment of the profession. We must continue to build on the foundations our predecessors laid and strive to maintain the high standards they set. Only then can we ensure that the profession continues to grow and evolve in a way that is true to our heritage and to the goals of our founders.

PHYSICAL THERAPY

Volume 34 / Number 10, October 1976
Education

Over the years, the educational process for the qualification of physical therapists has undergone several radical changes. Each change has been a step forward—each one, innovative and imaginative. From the first on-the-job, "follow-the-leader" training to today's sophisticated academic program, the ready spirit for experimentation, for adaptation to need, and the willingness to accept the challenge of the unknown has always existed. One sinking element of this spirit is the emergence of the philosophy and concept of allied health. While we today find this a familiar and understandable environment in which we educate our professionals, we must remember that the philosophy and concept were unknown before 1950. About that time, the first program known as the School of Allied Medical Professions was conceived and implemented at the University of Pennsylvania. This revolutionary idea has since become commonplace, and we should note that its major impetus came from a physical therapy educator, Dorothy Baethke.

Through the years, the changing pattern of professional education has consistently reflected an avoidance of stagnation. Despite the fact that the curriculum has been for almost 50 years subjected to what could have been rigid regulation and repression, the quality of education has moved ahead. Adherence to accepted guidelines and repetition of the same type of courses has not occurred; this did not happen. Fortunately, some individuals dared to experiment—to recognize that education must be "future-oriented" and must provide an educational experience which would guarantee the production of graduates with inquiring minds, intelligent approaches to treatment, and a thirst for research. We can look back and see the change from the rigid, hospital-based, clinically oriented "training" which characterized our current educational system. Soundly based in academe, capable of producing the true professional, scientific mind.

Personnel

During the past decade, we have all been aware of the emergence of what has come to be known as "women's liberation," and we might well analyze what our profession has done in this area. Can we find evidence of the revolutionary spirit in this regard? Of course we can, in a most unusual way. If the word revolution means to revolve or turn about, then what happened in physical therapy fits the definition precisely, for it was not the female of the species who was involved but rather the male. An analysis of most of the health professions such as nursing, social work, occupational therapy, and medical technology will indicate that these professions were historically and traditionally male-oriented. Indeed, most of them still are. But we were among the first to break that barrier and to encourage young men to find a fulfilling and challenging career as physical therapists.

As early as 1922, the original name of the American Women's Therapeutic Association was recognized as not desirable because the very title prohibited men from joining. At this embryonic stage the members were asked to select a new name and chose the American Physiotherapy Association. Very early in our history we elected a man to national office. Paul Campbell was elected Director in 1942 and Treasurer in 1944 and became a pioneer for what has become the pattern today.

Perhaps the greatest impetus for the increase in the number of men entering this profession has been the realization that health is a sure to the field during the last years of World War II. Because we were prepared for the urgent need for our services, we were successful in rehabilitating the vast number of casualties resulting from increasing wartime catastrophes. Men were able to identify the true worth and need for such a profession. And so they flocked to it in increasing numbers and continue doing so today.

We must recognize, of course, that the same revolutionary spirit which has grown and nurtured both our country and our Association did not produce a perfect product. On the contrary, this same free spirit of dissent and revolution was all too often responsible for arguments, wrong decisions, and troublesome times. The society found itself in quarrels with both its enemies and its friends. Through the years this country experienced the frustration of delay and the disappointment of defeat but still it prospered, grew, and matured.

This is the story of the history of the APTA. We have had, and are still having, major disagreements with our professional neighbors and with our own colleagues. We have turned down many a wrong road only to be forced to retreat and seek painfully for the right way. We have found ourselves faced with frustration, economic disaster, and rejection from within. There always has been progress, growth, maturity, and a growing realization that what we were somehow moving in the right direction. What we have today is one of our American spirit.

We have, then, a magnificent legacy created and developed in the best traditions of our revolutionary heritage. We have, if anything, chosen to spend our lives in the career of physical therapy, also accepted an awesome responsibility to continue this heritage. We have received a great gift, freely given, that we do far more than accept and appreciate its worth is imperative.

The future of our profession lies entirely within our hands and we cannot for one minute lessen our sensitivity to the opportunities and dangers which lie ahead. Our earnest belief is that our profession is literally at a critical crossroad and that only our objective appraisal of, and intelligent response to, serious problems will guarantee success for our endeavors.

Foremost among the problems facing us today, the real and present danger of loss of our identity. The past 10 years has been a time of problems and increasing worries and challenges. As we look to the future, we can confidently say that the future of our profession is assured. The American Medical Association is not the only organization to be in an "umbrella-like" organizations or pressure groups as a device for self-projection of each small segment of the profession. The cumulative effect of this move is the substantial loss of individual identities to that of the conglomerate.
services—has suddenly discovered that he has a right to demand quality care for himself and others and demand it he will. This idea is not new for this audience because this principle was clearly stated in the presidential address of Eugene Michens in 1971.

The fact remains that we must now clearly identify and stimulate the sector of our profession most effective in accomplishing this objective and we can once again look back to our nation’s early struggles to find direction and example.

Thomas Jefferson wrote the Declaration of Independence but the citizens, the people who read it and who believed in it, made it a living idea. George Washington led the troops but the soldiers fought the battle which won the war and our independence.

I contend that the most important group who can and must preserve our identity and persuade the consumer of our value in total health care are the clinical physical therapists who treat the patients. These clinical physical therapists are our present day citizens-soldiers; only through their efforts will we prevail.

We have recently heard much about the importance and impact of educators, researchers, and administrators. Young people in our field are being told that we must impress our colleagues with our knowledge, our discoveries, and our administrative and political stature. I agree this is true, but I also strongly believe that the educators, researchers, and administrators in our field have a far more important role. They must recognize their responsibilities to first serve their clinical colleagues by furnishing these colleagues with the tools and ammunition to provide first-class care to the patient.

We have this quality care to offer and we must reach our consumer with all possible speed and impact. Once the message gets through it will be a potent force in establishing and securing the identity of physical therapy.

Once we have accomplished the responsible demand for our services, I predict that a number of our other problems will solve themselves. As demands for our service intensify, and as we meet these demands in a responsible and professional manner, the issues of socio-economic status, governmental relations, prestige, and opportunities for future development will follow naturally.

Conclusion

Just as in our country, 200 years ago, found itself forced to declare its independence in order to ensure survival, so now are we faced with a similar challenge. The men of Lexington and Valley Forge were convinced of the rightness of their course and they dared to assert their conviction to the world. But this assertion by force of arms did not establish the credibility and respect which ultimately came to these United States. The continuing dedication to principles and the ongoing day-by-day demonstration of the value of those principles caused the country to develop and prosper through the years.

This is the challenge we now face. We have been created, we have established principles of ideas and behavior, and we have demonstrated that we possess real and necessary value to the world of health care. Our belief in these things, however, is not enough. If we are to survive and prosper, we must convince others that this is true and we are the only ones who can do that. We are the ones who can ensure a great profession in a great country by constant vigilance to quality care, by daring to explore, test, and question, by nurturing and stimulating creativity, and by perpetuating the spirit of our founders.

In this year of the celebration of the bicentennial of our great revolution, it seems appropriate to identify the presence and the importance of this spirit in our profession. This sense of the importance of the search for truth, the recognition of the need and value of standards, the willingness to attack the barricades of tradition and constraints are what have made us the respected body we are. I can only fervently wish that when the APTA celebrates its bicentennial our successors can look back and be proud that we, too, were part of a vibrant revolutionary movement.

REFERENCE

Twelfth Mary McMillan Lecture

Do We Dare to Remember?

MARY CLYDE SINGLETON, PhD

I am honored to have been chosen for this Mary McMillan award but humbled by the prospect of joining the illustrious company of the previous recipients of this award.

Do we dare to remember physical therapy—the art? From this topic, those who may expect to be taken on a trek into nostalgia will be disappointed—or perhaps pleased. For the challenge I give relates to value considerations which are as current and as central to our mission today as they were in the time of our founders.

Because the art was at the heart of our inception, do we dare to remember the art of Mary McMillan? In the midst of preparing this lecture, and realizing the awesome responsibility, I remembered Molly. If she were here, she would have exciting ideas and would be ready to offer her time and remarkable talents to help me—just as she did on an occasion in 1946.

**THE ART OF MARY McMILLAN**

It was at the APTA conference in Blue Ridge, North Carolina—the 25th anniversary of the founding of the Association. Molly was there, only recently returned from incarceration as a prisoner of war, physically depleted, but lively in spirit. I was president of the host, Carolina Chapter—as naive and inexperienced as one could possibly have been, and faced with the frightful duty of acting as master of ceremonies for the banquet where Molly was to be the main speaker. I wanted something very special for the anniversary celebration, and my panic was overwhelming.

Although I had never met Miss McMillan, we sat down together as old friends. She said in effect, "do not dismay," and in her charming manner, she reviewed the past presidents of the Association, all of whom she knew personally and most of whom were there. She gave each one some name which characterized the person—Catherine Worthingham as Catherine, the Coordinator; Helen Kaiser as Helen, the Hellenistic; Jessie Stevemson as Jessie, the just—are a few I can remember. Each of the past presidents was asked to recount a most unusual or memorable event of her presidency. Their stories were wild, and the occasion was a huge success.

Molly remembered each of them as a friend and as an individual. So it was with this first leader of ours. She was not only an avid advocate of professional excellence but also a prime master of the art of physical therapy. From her and from others of these early years, we have a heritage of humanitarian as an essential ingredient of the profession—as real as this Association, which is one result of their work—and as difficult to measure as love. Do we dare to remember this inheritance?

**RESPONSIBILITIES INCREASE WITH GROWTH**

We have come a long way since those pioneering days. The Association has shown phenomenal advancement on many fronts. One only has to read
the current yearly reports to be impressed by the depth and scope of our national activities. We have definitely established ourselves as a outstanding professional or- ganization of which we can be justly proud. The Association has done much for me - all of which I recognize and sincerely appreciate.

Along with the tremendous growth has come increased responsibilities as we attempt to respond to the pressures, problems, and demands of a chang- ing society. With President Bartlett, I too ask the questions, "Where are we now?" and "Where are we going?"

A number of specifying questions immediately come to mind. Are individual members prepared to respond to the current needs of our society? In our attempt to get scientific knowledge, are we losing our heritage of humanism? What legacy are we passing on to the next generation of students - the attitudes, values, and attitudes basic to the art. How well are we equipped to handle the pressures which will help to shape their basic professional and personal philosophy? How well will they be prepared to formulate strong positions and to stand firm when they are buffeted by storms of medical, social, or economic forces which may combine to undermine the very existence of our profession?

DO WE DARE TO EDUCATE STUDENTS FOR CITIZENSHIP?

The future of physical therapy belongs to all of us, for we of the current generation have the responsibility of providing and developing in our students their armamentarium of professional and personal characteristics which will serve them for the years to come. Our success or failure will be reflected in the graduates, because the composite of their professional knowledge, skills, ideals, values, and character is a determinant of what the profession will become. What are the necessary elements in the education of the "complete" physical therapist? Do we dare to go beyond the exclusively professional concerns to also educate our students for future citizenship in the community, the nation, and the world?

First, we must decide what we expect of a physical therapist and then incorporate into education the elements to achieve these expectations. Much has been said about what such a professional should do, but not so much about what he or she should be. I consider our graduates to embody a union of two cardinal dimensions on which education should focus:

1. The physical therapist is a scientist - an objective, analytical, critical, knowledgeable member of the body of health professionals who practices and contributes to the profession as a science.

2. The physical therapist is a humanist - in the sense of a person devoted to human welfare - compassionate, understanding, concerned with the humanistic attributes of himself and his relation- ship with others. This humanism expresses the art of physical therapy.

In any individual these two areas of competence are neither dichotomized nor mutually exclusive; they are aspects of a whole, synthesized to become one entity and should be treated as such. The physical therapist is at once a scientist and a humanist. Ergo, our aim is to educate students in the knowledge and skills inherent in the science, and, at the same time, inculcate in them the attitudes, values, and attitudes basic to the art. How well are we prepared to handle the pressures which will help to shape their basic scientific and personal philosophy? How well will they be prepared to formulate strong positions and to stand firm when they are buffeted by storms of medical, social, or economic forces which may combine to undermine the very existence of our profession?

PHYSICAL THERAPY: A SERVICE

Physical therapy, the science, is idealized and appreciated. We cannot overemphasize the impon- ance of our conviction that to remain a true profession we must educate students who are well disciplined in professional knowledge, technical proficiency, and research capabilities. Since our inception, we have struggled to develop a corpus of knowledge which only belongs to physical therapy. We applauded Helen Higginson, who was able to define this unique knowledge in her presentation entitled "The Non-Imaginary Demand." We are also indebted to her for the development of the physical therapy PhD program in physical therapy - an outstanding milestone in the education of physical therapists.

An essential element in the scientific education of students is the development of research capabilities. Our graduates must be able, through clinical research, to evaluate their current procedures and to develop new methods of treatment. They must also appreciate the importance of research as basic to the scientific "respectability" of the profession. The need for research is a fundamental demand of our profession and is a social and ethical demand which we cannot neglect.

We must give attention to this need, parallel and equally significant to scientific education, that is, through higher education, and with the advent of our own doctoral program, the time seems ripe for a surge of professional scientific advancement.

PHYSICAL THERAPY: An Art

But with this current focus on the technical aspects of education, in our zeal for the scientific, we must remember that physical therapy is also an art - the fundamentals of which are the uniqueness of our existence and the basis on which we were founded. I think of the art as the soul of physical therapy, of the science and techniques as its body. As fine as the scientific content of our education programs may be, in most of them attention to the humanistic elements of education is either minim- ized or largely neglected. This is not an accusation but an observation on the state of the art. I do not believe that the neglect is deliberate; it more likely results from the mistaken logic that students either have, or will develop, the art automatically. We know from experience that this is not the case and that any natural talent the student may have along these lines needs to be cultivated for full realization.

How do we define the art? By definition, art, like skill, suggests proficiency or excellence. More frequently, and in its most distinct sense, art con- trasts with skill and craft in putting stress upon something more, in implying a personal, unanalyzable, creative force that transmits and raises the art or product beyond a skill or craft though it may involve the essential elements of all three. Let us not forget that the art of physical therapy and at the heart of our professional ideals is its commitment to the worthy goal of humanitarian service to the individual. Are we ready to add sub- stance to our lip service to this ideal?

If we expect our students and graduates to demon- strate humanistic attributes in themselves and in their relationships with others, can we legitimat- ically ignore the humanity? And if we do ignore them, can we sustain a continuing diminution in the skills of the art? Our sentiments and actions are paradoxical. We Sidney scientific and technical acro- men and give it most of our educational effort, but at the same time, the prospect of useless physical therapy is inconceivable. I am reminded of the biblical admonition which says: "For what shall it profit a man if he shall gain the whole world, and lose his own soul?" But I think this is an area we have neglected. We must give attention to this need, parallel and equally significant to scientific education, that is, the promotion of knowledge, appreciation, and skill basic to the art of physical therapy, our heritage. To do this demands a concerted effort at providing a learning environment conducive to the development of personal and professional relationships and self understanding. It embraces academic and clinical experience, course content and process, and the attitudes and beliefs of clinical and academic faculty which stress the art in every phase of the student's education.

The following example substantiates the impression that we expect students who complete our professional preparation programs to be able to know and apply the art, even though they have not been exposed to it by precept or example. Take, for instance, the new physical therapist who was recently graduated as a result of an organized professional program who is employed in a hospital department. The head of the department who is not well aware that this novice, in the process of learning tech- niques and theory, would know how to function in a humane fashion. But this confidence is quickly dispelled, as the young therapist gives no evidence of appreciating the顶层设计 of a patient who cannot read, by giving him a list of complicated, written home instructions; nor does she investigate who is at home to help him. Even after students acquire a mountain of useful knowledge, and apply it in clinically approved ways, we as educators fail because most students lack the sufficient personal tools and comprehension of skills that allow them to interact with their patients as human beings.

NEED FOR HUMAN VALUES IN EDUCATION

With our recognition of the need to infuse the professional learning experiences of our students, we join a growing number of health and academic disciplines that are realizing the important- ance of enriching career education by the addition of humanistic elements. Indeed, the cry for more liberal curricula is increasingly being voiced by educators who assert that today's narrow professional education programs do not prepare the stu- dent to deal adequately with the human needs of either his professional or his personal life. Examples can be cited in medicine,14 nursing,12 science, in particular, physics,12 and in law.9

Particularly relevant to physical therapy are those segments for inclusion of the human rights in health sciences.13 Pellegrino concedes that we need to cultivate the humanities and their philosophy in the health care setting with the goal of profit the profession. If we fail to cultivate the humanities and their philosophy we degenerate to the basics.12 Interdisciplinary courses in medical ethics provide a framework for the incorporation of other important cultural forces as religion, philosophy, law, history, the communications-
 ATTITUDES TOWARD LIBERAL LEARNING

I submit that acquisition of skills and values gained from liberal learning are as significant in the realm of human development as is scientific knowledge. This means that students must have access to, and time for, these studies; but, more importantly, they must have an open attitude toward assimilating what such courses have to offer.

Available liberal arts courses abound in the university curriculum. A few, perhaps a language, may be required of physical therapy candidates, but a smorgasbord of humanities is available to students for selection of subjects of greatest interest to them. In the limited period allotted to the preprofessional baccalaureate program, however, participation in only a few liberal arts courses is possible. One alternative might be lengthening the programs to provide time for inclusion of a broader scope of liberal studies, but that is the subject for another discussion.

Of greater importance than the variety of courses is the humanities taken by the student is the depth of study projects. A few young people probably do not fully comprehend the potential value of the course content to which they are exposed and, consequently, gain no real internal meaning or true understanding of its implications for their own personal growth or as a preparation for professional education. Many students only tolerate the liberal arts while their highest priority, greatest effort, and most enthusiasm is afforded those basic sciences that they perceive to have an immediate relevance to their present training.

This biased attitude of students toward liberal learning is usually supported, overtly or implicitly, by their professional academic advisors who are properly, emphasize the importance of a thorough background in the basic sciences as vital to physical therapy, but, quite improperly, fail to place any particular emphasis on the crucial elements derived from basic liberal education.

If we want students to appreciate the value of the liberal arts, we must integrate the principles of such content into the physical therapy curriculum to the degree that it becomes obvious to the student that the humanities are as fundamental to professional education as is basic science. The challenge to our academic and clinical educators is not to teach but to make liberal learning relevant to physical therapy.

CURRICULAR EMPHASIS

In addition to the humanities, I choose to mention specifically two other subjects which may be partially or entirely included in the professional program but need more of our understanding and skill and, therefore, deserve particular attention.

1. Communication. This topic requires consideration in its broadest implications, because it goes far beyond the personal need to write and speak clearly and coherently. Our students need education in many aspects of oral and written communication, but one of the most immediate is the improvement of writing skills. The now-harried student of physical therapy, for instance, is not a writer, and their general lack of interest in reading, has been discussed at length elsewhere. Examples are recently documented in the National Observer of June 13, 1977. I believe that by now students probably feel about reading and writing as does Sally, the "Pea-nut" comic character. She says, "Do you know what Frank Bacon says about reading?" And she quotes, "Reading makes a full man, conference a ready man and writing an exact man." Then she returns, "But what does Sally say?" We can also ask, "What does Sally know?"

At the moment, my empathy for the struggling student writer is at its height, and expressed so well by Ben Jonson—"Who casts to write a living line, must sweat."

Many undergraduates and some graduate students can profit from remedial courses in writing. A recent description of a method of teaching this subject states that the reason students cannot write is that they cannot think on paper, and it advocates drilling exercises in the art of getting a coherent argument down on paper.

Despite the widespread attention this topic has already received, the development of writing skills should be a matter of ongoing prime concern, because it is an essential skill for individuals who wish to be articulate.

2. Gerontology. Another subject of large dimension demanding particular attention is the study of aging.

The physical therapist plays an important role in the care of the elderly and the aged but has only just begun to gain any real understanding of the needs of this large and growing segment of the population. We must not only learn more about the physiological, psychological, and social needs of the geriatric patient; we must also develop a type of care for these individuals which has, at its core, quality of life. Ruth Mitchell has described it as follows: "This goes farther than making life safe and comfortable for them; we must help them to live their daily lives in a way which is the most meaningful, satisfying and comfortable for them."

The physical therapist's attitudes, feelings and personal qualities are exceedingly important in the whole process. She goes on to say, "When we evaluate and treat the geriatric patient, we are caring for: a person, not a stereotype; an individual, not a typical older person; a total human being, not a medical condition. What a wonderful example of the application of the art of physical therapy."

The National Institute on Aging, created in 1976, marks a commitment by the government to give priority to research on problems and issues related to aging, the kind of visibility and prestige it has not heretofore enjoyed. Because of the magnitude of the problem, the increased national interest, and the availability of research funds, the physical therapist, who is a humanistic scientist, is in an ideal position today to pursue study of any number of aspects of this important subject.

Regardless of course content related to liberal education, the educator is key to actual transmission and exposure of humanistic attitudes. Fully as much, and maybe more, depends on the teacher as on the subject matter taught. For a teacher who is truly humanistically oriented, and is oriented to his students in various ways, no matter what is being taught.

Gardner, speaking on the broad aspects of excellence, says that cognition is only one of the many qualities in development. He states that it would be an exercise of ineptitude to believe that every teacher would periodically ask what impact his subject has on the total life of the individual beyond supplying facts.

Courses taught by teachers with appropriate specialization in the humanities may become only a part of the curriculum for the student unless he is associated with physical therapists who are committed to the philosophy and the application of the principles of human values. Whether we realize it or not, whether we, our academic and clinical teachers, are probably one of the strongest influences on the beliefs of students. Our intelligent and inquisitive students are quick to adopt many of the attitudes and actions we demonstrate, regarding professional ethics and clinical supervision. We are prepared to deliberately permeate our instruction and our individual associations with students and patients with humanism? And do we have enough evidence of, and confidence in, our own humanism to be able to impart these characteristics to our students?

Most of us who are educators had our major education in the sciences with little opportunity for emphasis on the liberal arts and human relations. We may, therefore, feel uncomfortable in our attempts to humanize our students. So, as instructors, we must learn to think in ourselves and inject into our professional curricula strategies which, by design, promote humanization in both ourselves and our students.
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patient. Perhaps the ultimate in the art of physical therapy is that personal, intangible, indefinable link—the soul-mating, if you will—which occurs between the clinical physical therapist and his patient. It personifies the therapist's sensitivity to the patient's needs, and immediately results in patient confidence in the therapist, so that they become as one, working toward a common goal. It involves the therapist being able to put himself in the patient's place and to see the world from that point of view. Some patients have the innate talent to accomplish this with little effort, others achieve it with difficulty. In either case, the example of a preceptor who can demonstrate such ability is necessary as a model for beginning students, whether or not they have natural ability of their own. But much more than isolated and sporadic effort is required. It is not sufficient that the art of physical therapy be transmitted by some clinical instructors who happen to have the talent, to a relatively few students who chance to draw these supervisors. A more consistent and organized effort on the part of all of us is needed to preserve this vital aspect of our service.

For many years I had the experience, as a clinical instructor and supervisor, of helping students develop clinical competence. More recently, I have been in the laboratory as an instructor of anatomy. This association with physical therapy students during all this time has been a joy—delightful and rewarding—even if not always a rose garden. I have gained much from them because they have taught me, as I have taught them. I hope that some humanism has penetrated the mound of anatomical facts which were our major concerns.

Students often ask, "What do you want me to learn?" I never fail to be annoyed by this question—maybe because it reflects the limitation of their thinking or my methods of teaching. But as I consider each student, I think—"What do I really want you to learn?" In all honesty, I want them to learn far more than is possible while they are in school. For the immediate course, I want them to visualize the human body as a beautiful and complicated whole, the sum of intimately related parts, which function to make up the total person with all of its human attributes.

CHARACTERISTICS OF EDUCATED PERSONS

Whatever else I want for these students goes far beyond an anatomy course and has been summarily described by Rosovsky, Dean of Arts and Sciences at Harvard, who speaks of the characteristics of the educated person.2 These characteristics are, according to Rosovsky:

1. The ability to think and write clearly.
2. An informed acquaintance with the mathematical and experimental methods of the physical and biological sciences.
3. An awareness of the cultural and other traditions from which he has derived the humanities— the body and the soul of the profession. Through acquisition of artful and scientific learning, we graduates will be qualified to meet their own career and personal needs as well as to fulfill society's expectations and demands of them for human service. The future of our profession depends on such wide spectrum of human experience; this encompasses the development of a sense of the total context of the profession, also of the social and moral implications of human service. In the final analysis, physical therapy is a communion of technical knowledge, and the values and attitudes derived from the humanities—the body and the soul of the profession. Through acquisition of artful and scientific learning, we graduates will be qualified to meet their own career and personal needs as well as to fulfill society's expectations and demands of them for human service. The future of our profession depends on such individuals who are prepared to contribute to ideal physical therapy, which is an amalgam of the most modern scientific technology and the oldest of humanistic truths; and who will transmit this ideal to those who come after them. Thomas Carlyle says it well: "Nothing that is worthy in the past departs; no truth or goodness realized by man dies or can die; but is still here, and recognized or not, lives and works through endless change." The question is no longer "Do we dare to remember physical therapy as an art?" The real challenge is "How can we dare to remember and perpetuate the art of physical therapy?"

REFERENCES


Margaret L. Moore was the thirteenth recipient of the Mary McMillan Lecture Award in 1978. She received her Bachelor of Science degree in secondary education from James Madison College, her physical therapy certificate from Walter Reed Army Hospital, her Master of Arts degree in physical therapy from the Medical College of Virginia, and her Doctor of Education degree from Duke University. Dr. Moore has received the Lucy Blair Service Award from the American Physical Therapy Association. She also was awarded the first Distinguished Educator of the Year award from the Section on Education, APTA. Dr. Moore has been the first Vice President and Secretary of APTA and has served on the Nominating Committee, on the Committee on Graduate Education, and as President of the Section for Education.
General Hospital was an honor and has been of lifetime benefit. But whose footsteps were there ahead of me? Colonel Emma L. Vogel and those who taught me and served with me; the giants of Physical Therapy before and after World War II. Later I found myself a graduate student trying to catch up with the footsteps of Dr. F. A. Helfbrandt at the Medical College of Virginia. She continues to have an enormous effect on my commitment to scholarship and publications. My writing has been laborious and faulty, but I hope the content of my publications has made up for my inadequacies as a writer.

I continued to follow strong people at the Universities of Wisconsin and Colorado and at the APTA headquarters in New York City. Each time, the challenge to perform well was refreshing, and yet demanding.

Although there was no physical therapist to follow at the University of North Carolina when I went there in 1957, I had joined an eminent university with a faculty of national and international renown; all around me was quality to emulate.

Consider those speakers who have preceded me on this series of lectures and you will see that this is no place for the timid or weak of heart. Among them is Eleanor J. Carlin, who caught me going to the bus with Walter Reed General Hospital in Washington, DC, with suitcase in hand when I got weary of the Army routine as a student. Margaret Knott was a fellow student in that program. Mildred Erson was my boss in the APTA office. Lucy Blair—my colleague at the APTA. Catherine Worthingham was instrumental in the University of North Carolina being awarded its first grant in support of physical therapy, which made it possible to initiate our undergraduate curriculum. Mary Clyde Singleton is a cherished colleague. All of these women have stimulated me by their commitment, service, vision, and humanness.

And how would any of you like to follow the previous three speakers, all of whom were editors...
of the Journal? I have rejects in my file from each of them. . . . Some years ago on a night after a chapter meeting in Chapel Hill, a lively party with lots of people, loud music, much dancing, and rafting of glasses was taking place in my home. Who should appear at my front door but Molly McMillan. I had met her for the first time that day at the chapter meeting; she had come from her brother's home in Pineland. After the initial shock, "Southerner hospitality" prevailed. Within ten minutes Miss McMillan was in the middle of the group with her shoe off. The next day, she enjoyed her first Southern barbecue and husk puppies. I treasure the moment with her. . . .

The next day, you selected me to a national office, and you honored me by having me run as President of the Association. I was the last woman to appear on your slate for that position, but even in defeat, I benefited, and probably you did, too. You got a fine president and I the opportunity to complete my doctorate, which has been of value to me, perhaps, and for your program at the University of North Carolina at Chapel Hill.

Enough of my reminiscing, but I do believe it is important to remember who helped us along the way with whatever we have been able to do or be. To my friends and colleagues in North Carolina, and elsewhere, my sincere thanks. If you think this is a swan song—forget it, for there is a drab song of my friend mentioned, "there is a dance in the old dame yet.

Why do some physical therapy service programs and some physical therapy educational programs grow, prosper, and stay fresh and innovative, while others become lethargic, stunted, stagnant, even bankrupt? The critical ingredient that makes these programs successful is the quality of the educational leadership. This holds true regardless of the agency's size, geographic location, or organizational characteristics. Some directors, service-oriented and education alike, may not even recognize their own strengths and weaknesses as leaders, although each is in a leadership position and is responsible for the fate of his or her organization and for the people associated with it for better or worse.

PRACTITIONERS AND EDUCATORS

In physical therapy we have many talented leaders, and have had for decades, but the supply of willing and able persons is not sufficient for today's needs. We face a leadership crisis in meeting service and educational needs and opportunities and obligations. For.

Physical therapy needs team builders, not empire builders; team leaders, not caretakers. . . .

... unaturally, leadership and other managerial abilities can be identified and developed, so that increasingly effective management of people, ideas, and financial and other resources can result—-the consequent strengthening of both service and education. Physical therapy needs team builders, not empire builders; team leaders, not caretakers; "mammoth manders of ships, not rafts"; rafts only stay afloat—ships go somewhere.

Service and education are inseparable and interdependent; both are affected by the same basic issues of health care in modern society. The clinician who does not educate is only half-alive, and the educator who does not serve is deficient, even though each serves organizations with different primary goals and allocates work effort differently according to service and teaching commitments. With lifelong learning as the expectation of the future, all of us in physical therapy are becoming even more dependent on, and influenced by, each other. Some of the problems, opportunities, roles, and goals within this milieu are relevant to the understanding of emerging leadership needs.

An exhaustive list of problems is not appropriate here, but a few questions should be raised about the opportunities that are not being seized and obligations that are not being met.

For one thing, do we as providers really give more than lip-service endorsement to the statement that health care services should be appropriate, of high quality, accessible to the consumer, and of lowest possible cost? Do our educational programs adequately address these factors? As practitioners.

Physical therapy needs team builders, not empire builders; team leaders, not caretakers. . . .

do we endeavor to meet the above four criteria for all who need the services, or just for selected segments of society? And do we serve consumer needs when and where they exist, where primary care is received, and where special needs are served—the mountains, rural areas, mental hospitals, and geriatric treatment programs? Most of our service and clinical education efforts still focus on the fixed facility, the hospital, and the rehabilitation center—not always appropriate, accessible, or low cost from the viewpoint of the consumers.

Concern for the quality of physical therapy service is unquestioned: witness our efforts in peer review and quality assessment, but is progress rapid enough in applying the results of evaluation and are there a sufficient number of clinical centers involved? Much attention appears to go toward studying reimbursement procedures, hopefully toward the goal of providing services at the most reasonable low cost, but other than these activities there appears little and often no interest in managerial concerns.

The same is true of the educational programs, where insufficient attention is paid to improving equipment and space resources, quantity and quality of support personnel, student-faculty ratios, and the scholarly output of faculty members. And in more vigorous local leadership necessary in accelerating needed curriculum changes, despite commendable efforts to implement the new Standards for Accreditation of Physical Therapy Education Programs.

Service and educational programs are located in a hierarchical setting where management and control extend from one level to another. Some of the opportunities, roles, and goals within this milieu are relevant to the understanding of emerging leadership needs.

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For one thing, do we as providers really give more than lip-service endorsement to the statement that health care services should be appropriate, of high quality, accessible to the consumer, and of lowest possible cost? Do our educational programs adequately address these factors? As practitioners.

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The educator who does not serve is deficient, and the clinician who does not educate is only half-alive. . . .

The personal, intellectual, and professional characteristics of the leadership talent needed for service and educational programs are similar, differing in degree according to an institution's size, complexity, age, goals, objectives, and general characteristics. For example, whether the charge is to develop a program in a small community agency or in a large health center, the director will need to be capable of defining problems, designing systems to address the problems, programming suitable activities, operating the program, evaluating the efforts, and taking place, and making needed modifications.

Literature is abundant on the roles, functions, and evaluation of university administrators, deans, and department chairs; meager materials exist on directors of service programs in health care institutions. Health care and hospital literature, while it speaks to the issue at all, addresses the roles of service department directors as middle managers, and much of the content is narrow and based on the industrial model. There are no professional organizations, like the American Hospital Association, for example, for the directors as managers, but that literature, although interesting and in part helpful, is unrealistic when applied to physical therapy service program directors. The service director generally relies first to the board of trustees and then to the community served by the health care agency.

The educational administrator generally functions in a less structured environment where the service director, and faculty traditions continue as a strong influence. Still, colleges and universities are changing rapidly as they become larger, and state planning and control mechanisms pose an increasing threat to old-time faculty organization, autonomy, and governance. The national push for accountability is also stimulating change toward a more rigorous management style at all levels.

As for recruitment and selection, academic administrators are generally responsible for the personnel process involving students, faculty, alumni, colleagues, and peers; the same people are generally involved in recruiting of young therapists. The performance after employment, which may lead to reappointment for a terminal position, to tenure decisions in relation to academic rank, or to promotion and appointments. Selection of a service director is generally done by few persons from one or two interviews of candidates often responding to advertisements.

Educational administrators may or may not be tenured as faculty, but they are generally appointed for five- to seven-year terms. Seldom, in current practice, do individuals serve a lifetime commitment in such positions; we have been witnessing much turnover in recent years. Service directors, on the other hand, generally serve at the pleasure of the administration, based in part on the satisfaction of colleagues and students, and in part on the satisfaction voiced by physicians, patients, and management. Some may be tenured in the system by classification programs of official or unofficial agencies. Today the provisions of affirmative action and civil rights...
legislation can make termination of staff employees cost-effective and difficult.

The range of responsibilities falling on the shoulders of the educational administrator may be awesome, depending on the environment of the academic program, the support received from administrative superiors, their own leadership qualities, and their view of the responsibilities. Those academic and administrative responsibilities generally include curriculum, faculty and staff, students, space and facilities, alumni, funds and grants, service commitments, and scholarly activities, including research.

The service director may also have large responsibilities, depending on his view of the physical therapy needs of the community in relation to the site and purpose of the organization. The director deals not only with students, physicians, staff at all levels, patients, the public, and perhaps students. His responsibilities include services, facilities, budget, income and expenditures, personnel, program quality and quantity, and program development.

The service director has a community commitment and professional responsibilities beyond the confines of the institution, just as the educational administrator has. Not all educational administrators and service directors see these enumerated duties as their responsibility, which may explain some of the lack of development of our physical therapy service and education programs in existing or new sites.

Both educational and service directors can be unaware of the opportunities open to them for the benefit of their programs. Both can be aware of, but frustrated by, their lack of involvement in the parent institution's decision-making process, and many are really ill prepared to make an impact on the functioning of their institutions either through formal or informal channels. There is a notable lack of an appreciation of the care and feeding of deans and the care and feeding of health care administrators, demonstrating an absence of those skills necessary for leadership in physical therapy.

In general, the evaluation of administrative performance at high levels in health care, speaks of attending to both personal qualities and business performance qualities. He defines which are the most important, when perhaps a balance between the two is most desirable. The items he stresses can be applied to the description and evaluation of leadership personnel in physical therapy educational and service programs, and it may be of interest to note them here:

1. Personal characteristics
2. The current progress of the programs in relation to space, growth in programs and facilities, etc.

Leadership is a process . . . people can learn . . . Our focus must be on identifying and developing these individuals.

Leadership, as defined by our leaders, is the task of developing and informing others to effect change. Leadership activities include the following:

1. The record of goal achievement of the program in relation to the clarity of those goals, the understanding and support of those goals, and the degree to which planning and achievement of those goals have been well thought-out and executed.
2. The selection of personnel, their qualifications, competencies, productivity, and the management of incompetent personnel.
3. The planning performance of the leader in relation to appropriateness, desired outcomes, performance, innovation, and developmental stages.

Leadership is a process that a person uses, not the personal characteristics. Internal capacities, and personal traits, a great variety of people can learn the concepts and applications involved in understanding the leadership process, and putting it to work. Our focus must be on identifying and developing these individuals, who may or may not also be brilliant scholars and important people. Because of ineffective leaders above them, talented faculty and skillful clinicians are often left childless and lack resources and an effective working organization.

The Model Leader

Leaders may be defined as good managers who are able to influence the behavior, attitudes, beliefs, and values of others, particularly in the direction of their own goals in a given situation or most important, of the goals of the organization. Leaders operate in a world of human beings, using interpersonal skills at least 50 percent of the time, but they are ineffective without the necessary technical and conceptual skills by which achievement is attained. Leaders are entrepreneurs, but not bold or brash empire builders; they are creative and open-minded people, self-activators with psychological strength and vision. Leaders are people who can shift their focus from comfortable survival to expanding the scope of enterprises, who can balance cost awareness with social awareness. Leaders are habitual learners, quick and innovative; risk takers who can convince others to depart from traditional activities, when indicated.

Leaders are the people who effect change by bringing new stimuli, sometimes with a bit of turbulence and conflict, often an explosive media. Those who are harnessed are essential to progress, and vitality springs from diversified opinion: issues can be thoughtfully considered; new ideas emerge. People must not only have the will to change, but the wisdom to change; a group that is too homogeneous lacks the catalyst for change.

Leaders are goal-oriented and are problem solvers in administration. Leaders are decisive; they are decision makers who base their decisions on input from staff and who make good use of experts. One is never dependent on his own skills or resources; the person who can effectively use the knowledge and wisdom of others will be more creative and productive. Leaders are achievers who get things done by goal setting, decisive action, feedback provision, conflict resolution, and through human relations involving listening, trust, support, and empathy.

Leaders are communicators, able to explain to a potentially as well as to a hostile critic and able to work with important media. Those who are barren of ideas or who have ideas but cannot communicate them are caretakers, not leaders.

Leaders are positive in their approach to what they want to accomplish. A leader builds confidence and trust in others, encourages cooperative group efforts, and uses appropriate management techniques. But responsibility eventually focuses on one person, and only one person can set the whole—sustaining, enhancing, and projecting the personal identity of the organization through his or her own personality.

Leaders are sensitive, tough, sensitive, and flexible; they are human, courageous, vigorous, והתן את התוכן הענייני של התוכןatural olarak.
A variety of approaches is needed if we are to replace equity... some spark of excitement.

Leadership patterns ... in physical therapy reflect ... outmoded stereotypes...

encourage more students to be prepared and willing to assume these roles.

All of us can identify staff physical therapists and faculty members who have room to grow, who have potential, and we can encourage them through every means at our disposal. A person will either continue to develop or will actually decline in abilities to lead. I also believe that there is no ceiling on one's ability to improve and grow, and when a ceiling exists, it usually self-inflicted. Our main task, therefore, is to bring to the attention of a larger group of participants, young and old alike, the opportunities for self-improvement and the desire to achieve.

Leadership patterns and potentials in physical therapy reflect some of the outmoded stereotypes operating today in society in general, particularly with respect to sex and age.

Membership in the American Physical Therapy Association is more than 27,000. Many other qualified physical therapists and physical therapist assistants are not members. There are now two women for every man among the active membership, yet 47 percent of our educational programs are directed or chaired by men. In our professional activities, 56 percent of the APTA chapter presidents and 54 percent of the section chairmen are male, as are 7 out of 15 board members. Since 1967, only men have been president of the Association; since 1952, with a three-year exception, the treasurers also were men. True to the stereotype, most of the secretaries during this time were women. We elected them all.

In many predominately “female” professions, men characterize the top management positions; this has not always been true with physical therapy. The APTA headquarters staff reflects the increasing male activity; 56 percent of the professional staff in 1977-78 were men, and beginning in July 1978, the figure will be 60 percent.

The stereotype of men and women in the world of work is relevant when one looks at the participation of our members in educational and service activities. Women are variously described in the work situation as rational, object oriented, aggressive, career oriented, and task oriented to things that are finishable that are essential to the job; they are confident risk takers, well aware of the consequences, ready to take their service process a step on the ladder of their own personal progression in a career path. Women, so the stereotype goes, are frequently emotional, very oriented to interpersonal relationships, passive, job oriented as opposed to career oriented, oriented to a 9 AM to 5 PM workday, overactive, crouching, and interested in work only from the point of view of personal growth and satisfaction. We all know men or women who meet some, if not all of these characteristics, but we also know men and women who deviate tremendously from the stereotypic descriptions of the male and female worker.

Shadows or not, they are taking place in society as more women appear in “men’s” jobs; institutions are not only, at least by lip service, seeking out talented women in order to meet affirmative action requirements. In my experience more of this is for show than for real, and efforts in seeking well-qualified women for top positions in many health professions’ academic and service institutions are not sincere but rather to satisfy affirmative action investigators.

Still, changes are taking place. Little by little, with effort, confidence, and commitment, more women should step forward to be counted, to realize that they are equal, able, and competent, and be willing to attempt success in difficult, challenging, and rewarding positions. In physical therapy, our supply of leadership personnel is dangerously limited; let us hope that more women, not only in their 20s, but in their 30s, 40s, and older, will step forward and be counted. Those returning to work after 10 or 15 years of homemaking should be encouraged.

Another stereotype is that the final years of one’s career are not really productive. Should we really just rest on our laurels and wait around for retirement? For each of us past 40, there is the opportunity, and indeed the necessity, to reevaluate ourselves and to be regenerated, or else we become stagnated. In another new position, it becomes an armamentarium of experience and knowledge and skills in order to keep our professional activities vibrant, alive, and rejuvenated. This effort to maintain viability is an intrinsic part of the struggle of the career individual during the middle years.

What happens to physical therapy’s leadership personnel in education and service in this period of life—this period in which we face the danger of losing the confidence of the society of tenured positions, classification systems with locked-in appointments, and little required in the way of revitalization—this period until retirement. Frequently without the energy or vision to keep our programs moving forward. A precious few of us continue to be happy and productive in the classroom, in the clinic, and in research. Even fewer continue their upward climb through administration. Unless there are additional incentives so that opportunities exist for evaluation of performance, new growth contracts, and rotation of faculty and key staff persons, we may become locked into the mid-career periods of the middle years and our programs will suffer. Some crises in reorientation are vital to all of us in order to continue our personal growth, for without such, we would continue to live last year over and over. In my fear that this is what has happened to many of our educational and service programs because of an absence of new vitality, new leadership, and redefinition of goals and objectives for our programs. Regardless of age or sex, more of us should be in leadership positions, because these require problem solvers and that in our curriculum should have prepared us to be. The very nature of our clinical experience is problem solving, and these same developed abilities are essential in managing the educational and service-oriented organizations with which we are associated.

Education staff needs all the help it can get to increase salaries and fringe benefits and to secure additional resources in order that we continue to make advancements in our educational and service-oriented programs and become even more respected parts of the higher education structure. This can be accomplished by talented leaders who are informed and committed. Parallels are true for service directors, for only those who are committed and knowledgeable should be able to diversely service programs, increase resources, organize an intricate system, and put us in a better position to meet the public needs for quality physical therapy services.

We salute the leaders who have brought us to this stage of our development. They have been, for the

Being builders of winning teams can be one of our most precious commodities for the future of our total professional efforts.

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most part, team builders and not personal empire builders; we need more entrepreneurs of this ilk in today's postindustrial era of new life styles, new values of work and play. We need more of those who can create new programs and new opportunities for patient service and educational excellence. This will require of many of us the courage to take risks, to know the odds, to be ambitious, and to exercise creativity, energy, and high intelligence in aspects of service and educational programs. The ultimate goal of our profession is to render service to the American people, and in doing so to fulfill a highly respected and valued social role. We currently come to positions of leadership inadequately prepared for the complexities and the opportunities afforded us, and this must change.

We can learn. For one thing, a higher value first needs to be placed on our roles as managers. A talent search can begin by identifying leadership abilities among applicants, students, clinical and academic faculty, and staff, and by providing development opportunities. Diversified postgraduate educational experiences, increasingly directed to personal self-improvement, should be made attractive to larger numbers of our colleagues. We should not be afraid to change jobs, to change roles, to rotate our responsibilities, to rotate our staff, and to give special staff members the opportunities for developing their talents in management. All of us can do to some extent be mentors to others—including young people and those returning to the physical therapy work force. Unfortunately we do not always present the best role models.

Being builders of winning teams can be one of our most precious commodities for the future of our total professional effort. Captains of ships, not rats, we want to go somewhere as a team and not just stay afloat and drift in the competitive high-pressure situation that faces health care delivery in the 80's.

REFERENCES


Helen Blood was the fourteenth recipient of the Mary McMillan Lecture Award in 1979. She received her Bachelor of Science degree from the University of Utah and her physical therapy certificate from Stanford University. Dr. Blood has received the Beatrice Woodcock Memorial Lectureship from the Northern California Chapter of the American Physical Therapy Association. She has served as Vice President, as a member of the Board of Directors, and as Speaker of the House of Delegates for APTA, as well as in the Section for Education and the Committee on Continuing Education.
Fourteenth Mary McMillan Lecture

Account Ability

HELEN BLOOD, EdD

Few in this audience today have had the privilege of personal contact with Mary McMillan, but many have been impacted by the leadership and foresight of one of our founders and first president. Typical of true pioneers, she not only prepared the way for us to follow but left us a rich heritage—truly a heritage. Each of the McMillan lectures has personally added to our heritage through works and words. Through this fourteenth Mary McMillan Lecture, I trust that I may join my predecessors by my contribution this day.

Thoughts, ideas, issues, philosophy, plaudits, anecdotes, fantasies, titles, phrases—all matter of things have tantalized me since I accepted this honor.

Enthusiasm and anxiety each have vied for a rightful place during the preparatory process since the selection of the title, "Account Ability." Why would one choose to take the perfectly acceptable word "Accountability," which to many denotes new levels of respectability, and separate it into two major components or two separate words? Let me suggest that the reason is because there seems to be an overemphasis on the accounting component, which constricts or directionally limits the ability component.

If accountability can be defined as assuming responsibility for incurred obligations, one can devise measurements for accounting for responsibilities delegated or assumed. The more difficult aspect is defining "incurred obligations" because questions arise as to: What obligations and incurred by whom? Thus the measuring or counting outcomes must be superceded by our ability to select, define, characterize, and value our individual or collective obligations.

Prior to the "Great Society" legislation under President Johnson, accountability in physical therapy was essentially one's individualized ability reflected primarily in personal and patient satisfactions. The federal government initiated massive social legislation during the 1960s, or the "Great Society" era, which altered traditional relationships between public and private health care and promulgated new roles, namely providers and consumers partnerships. To assure some equity in using available services and providing established benefits, an extensive technological system of accounting and measuring began and continues to proliferate.

Two countervailing forces have become apparent recently and both seem to be reactions to technological egalitarianism flourishing under the guise of accountability. One force, the resistance to mandating government involvement, has been exemplified in California's Proposition 13, which has been an outspoken mandate by property owners to discontinue "...The measuring or counting outcomes must be superceded by our ability to select, define, characterize, and value our individual and collective obligations."

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Unchallenged compliance stifles initiative and innovation.

Of even graver concern has been the lack of definition of responsible accountability on the part of the consumer to the health care system.

be directed toward collectively and individually influencing the character of physical therapy and health care in relation to client needs or to society. The triad consisted of consumer, provider, and financier, which comprises three groups, has already been mentioned.

Let us consider these relationships by using a conceptual framework or model within which this triad may have interface (Figure 2). In so doing, recognize that models embody the ideas, philosophies, and schemata of many individuals and are organized as a vehicle for communication.

Ponder for a moment the roles and responsibilities of each component within the model. Contemplate the interrelationships that have existed, do exist, and ideally should exist. Hopefully, these contemplations have included both the public and private sector and the interlinking impact. Performing health care functions implies multiple functions and a variety of different types of organizations. The broadest classification for the health care functions would be education, service, practice, and research, with the subcomponents of each group differing in definition and function. The model may be defined by its purpose and administrative environment and subdivided into the various categories to name a few, universities, hospitals, rehabilitation centers, research institutes, public schools, equipment and supply companies, and insurance companies. Over time these mechanisms have enabled a type of symbiotic relationship to exist and a form of accountability or quasi-accountability to be recognized. Of all of the components, the consumer role, albeit changing by tradition and accruement, has essentially been defined by the provider or the financier. Of even graver concern has been the lack of definition of responsible accountability on the part of the consumer to the health care system. The main index for consumer accountability is financial remuneration for services rendered by providers as opposed to accepting personal responsibility for procedures or plans to achieve desired goals or outcomes. A true partnership for health and the attendant commitment from all partners, the consumer, the provider, and the financier, has no synthesized or integrated criteria. The collective ability of the triad could

be directed toward the meaningful and responsive inclusion of the consumer in implementing a system of personal and societal health care. Physical therapists, through developing standards, guidelines, competencies, and position papers, have developed some degree of sophistication that would be complementary and helpful in such a partnership.

This schematic representation is probably readily understandable and easily conceptualized because it encompasses the milieu in which physical therapists are educated and work. Subdivisions, many or few, of the broad categories and variations within each component can be visualized by each of us and undoubtedly would reflect our personal and professional values and experiences. While considerable time and effort could be spent in discussing both the intrinsic and extrinsic worth of such a schema, let us move on to what might be considered the larger, overriding, perhaps overwhelming, part of the model (Figures 3, 4). Before doing so, it is well to realize that models are often an aggregate of contributions from many sources and thus seem familiar.

Society

Society, a collective term for us as individuals or groups of individuals, can and often does mask our individual responsibility and ultimate accountability. Through the democratic process, our elected or delegated representative must be accountable to a larger constituency on a greater number of issues. Both the represented constituency and societal issues must be considered in light of local, regional, and national interdependences. Furthermore, standards or guidelines for the use of a spokesperson are often fragmented, camouflaged, disorganized, and unclear. Yet, imperfect as representation by election or delegation is, most of us prefer a democratic, or if you wish, a quasicommunist-society. Within this context, our individual and collective ability must be drawn upon to communicate our values, priorities, goals, and expectations and to sustain, modify, or abolish our action traditions.

Many influences will affect our ability to shape our society, our health care system, and our profession.

Values

Societal and group values are consensually in nature and usually derived from compromise. Values are the means to an end; that is, to achieve things, ideas, beliefs—something intrinsically valuable or desired.

The ability to conceptualize and articulate the perceived value of something allows others to acknowl-
"Naturally, our professional expertise and personal convictions will be colored by able discourses from colleagues, friends, and adversaries as well as our own ability to conceptualize, synthesize, and participate in convincing problem-solving and decision-making processes."

edge, consider, accept, interpret new information, or reject. One would expect that the degree of acceptance by others would be proportional to the timeliness, clarity, and resonance which given values can be enunciated. Personal values undergird professional values and both in turn should be translated into societal values.

Priorities
No matter what form of governance, a society will have priorities. The form of governance may determine whether the order is superimposed by authority or achieved by participatory decision making. Our ability to participate in setting or influencing the ordering of priorities will depend upon our ability to grasp multiple issues and problems relegated to society for action or solution. A broad perspective must be coupled with the ability to define and defend relationships during the process of establishing priorities. Naturally, our professional expertise and our personal convictions will be colored by able discourses from colleagues, friends, and adversaries as well as our own ability to conceptualize, synthesize, and participate in convincing problem-solving and decision-making processes.

Goals
The backdrop for our societal goals is the Constitution. Needless to say, even in a time-honored document is being challenged, tested, and interpreted through a constant stream of judicial decisions. Beyond the Constitution, laws and their attendant regulations establish new goals. Such goals rarely fit into a logical, unified plan but respond to prescriptive or categorically oriented legislation. Other goals, if they can be described as such, emerge from the political platform of the party in power or by goals or objectives promulgated by the governing officials. The ability to be politically sensitive and active requires interests and talents possessed by few individuals, let alone by physical therapy professionals. The means of advocacy to citizens and professional providers of health care seem to be developing individually and collectively. When physical therapists can become attuned to the political process and substance of goal definition within private or public organizations, each with unique styles of governance, they may derive satisfaction from providing input for the formulation of goals.

Expectations
Historically, expectations have been either private and somewhat personal and poorly communicated. Expectations are those hopes held for with anticipated fulfillment. Relative to expectations a very interesting sociological phenomenon has been described by Bell:

What is clear is that the revolution of rising expectations, which has been one of the chief features of Western society in the past twenty-five years, is being transformed into a revolution of rising entitlements for the next twenty-five. The particular demands will vary with time and place. They are, however, not just the claims of the minorities, the poor, or the disadvantaged; they are the claims of all groups in the society, claims for protections and rights—short or entitlements. The fastest growing sectors of Western societies are health, education and government."
Traditions provide a unique bonding and structure against social isolation or loss. Traditions are common but unspoken language and at times build cohesion but often disintegrate if traditions become obsolete. Comfort and solidarity exist when traditions act as bonds. Bitterness, struggle, and test}

Societal Influences

Any influence can have a positive or negative valence or some degree between these extremes. The influencing elements noted must be considered as reflecting an interactive process with societal values, priorities, goals, expectations, and traditions (Figure 10). Also, those who influence may serve either as a catalyst or a constraint. The interaction of the various components suggested in the entire model represents a complex relationship between ideas and ideals, people, and resources. The proposed influences may not be totally inclusive but are sufficiently representative to proceed with the development of the conceptual model. The linkage of knowledge, technology, science, and art are readily apparent to the professional because for generations their elements, although not equally valued at any time, have been absorbed as the substance of our being. To define each of these elements would seem to be the obvious. What may not be obvious is that each element can and does influence the greater society as well as the specific client system. In physical therapy and other health care professionals. As a prime example, one can look at the changes and utilization of the computer technology and recognize the magnitude of a single influencing element on many facets of society. Perhaps the most worrisome aspect inherent in these influences is our ability to keep abreast of new developments and to maintain a proficiency with the inclusion of new, ever-present terms to avoid outdated jargon and recognize obsolescence. Our responsibility extends beyond these abilities because with valued judgment, the health care system needs to be influenced by our findings.

Another cluster of influences—culture, biology, ecology, and economy—essentially denote another set of social subsystems. Much less emphasis, however, has been given to these elements than education in the training of physical therapists and other health professionals. The influence of the lack of attention given to these influencing elements, they do provide a milieu that cannot or should not be ignored. For most of us there is probably a mixture of sophistication and ignorance, which has been attained from education, work, or life experiences. If one considers each of these influences as the most genuine sense and finds at least some innate or developed ability, or at least is sensitized to each, then prevailing expertise and interest should be utilized to effect outcomes. When naive prevail, education and consultation should be sought for purposes of proficiency and understanding of the various influences. It is apparent that this cluster of influences has been explored in a rather superficial fashion. This treatment of these elements in this manner has been by design. The complexities and ramifications of each could be laid out in another presentation. Just as the complementarity of your own ability or lack of ability to make considered judgments about the degree of societal and professional influence and how they may interact. The various parts of the model have been examined. Now consider the parts in relation to the whole (Figure). Contrary to convention, which is to start at the top, it may be easier to focus on the lower portion of the figure first because of its greater familiarity. Then concentrate on the upper portion and ponder the magnitude, the importance, of this superstructure. One might then begin to explore the entire space. It is there, it is real, parts of it are fashionable, but the whole is elusive. Yet, to ignore the societal component is to live and work in a microcosm without any awareness of the macrocosm. The reference to society as a superstructure as a means in which the model is displayed may convey the idea that the various components are hierarchical. This type of relationship is not entirely correct. There is no change or interdependence among all components. Any action or behavior should impact the whole, perhaps to some degree, affect the others. Essential components could be likened to intermeshing gears in a large machine—a sociological system.

The societal process of habitation requires that some kind of governance exist. Yet at present junctures, paradigms abound that interfere with the process. Apathy and disenchantment with social systems have caused greater individualism for the health and welfare of self. The desire for an egalitarian, cost-effective system of health care has burgeoned into an expensive, confused effort to comply with outdated and often outdated standards. The focus of the health care industry, the patient or client, has been lost in our emphasis on the mechanisms used for serving or caring for the person. The borrowing of organizational and management principles has guided our technology, likening individual to products and reducing the humanistic caring aspects of healing. The forgoing suggest a few of the contradictory situations surrounding us. Such paradoxes have splintered the bonds that tend to generate trust, understanding, and common ideologies. Also, one can anticipate that some of these paradoxes may be resolved but others will likely crop up to take their place. In all probability, more ambiguity will take place as society becomes larger and more complex and as the profession of physical therapy seeks to respond to the growth and complexities. Whether or not the complications can be reduced, MacArthur suggests five rules for society, our elected and appointed representatives, for the interface with business and the citizenry.1

1. Identify some of the functional components that may expedite or impede internal and external intervention.
2. Devise arenas for personal and professional roles and responsibilities to be defined and utilized.
3. Recognize that the timely resolution of simple and complex issues are intertwined in a complex and sophisticated milieu. Should you consider this model worthy of partial or total implementation, consider the comparative worth of retrospective and prospective approaches to resolution of issues. Further, consider the use of retrospective accounting as a viable source for prospective problem solving and not after-the-fact accountability.

Many compromises may be negotiated and negotiation affords the opportunity for gain just as it provides the risk for loss.

1. Increased professional autonomy in education, research, and practice
2. Designation of the appropriate entry level for professional education
3. The character of continuing education, whether for competency or currency and whether mandatory or voluntary
4. Clinical education as an externship or the continuation as an internship and the associated role of the clinician
5. Specialization, with the attendant certifying and monitoring functions
6. Federalization of physical therapy groups as a unifying mechanism within which growth and diversity exist
7. Alliances or coalitions with other health professions
8. Interflow of government and private enterprise relative to various aspects of physical therapy
9. Specialization or enrichment of physical therapies within organizations or societal units
10. Imposition of laws and regulations for codes and self-monitoring and regulation

References

"Full accountability, which is assumed responsibility for incurred obligations, implies an appropriate interfacing between accounting for outcomes and utilizing the full range of our abilities."

- Realignment of roles and responsibilities of both new and revised professionals

Obviously many other issues of equal importance could be added, but these are examples of potential points. For some of these issues, physical therapists will initiate action; for others a response will be required. Many compromises may be negotiated and adjustment afforded the opportunity for gain just as it provides the risk for loss. For all kinds of interventions there is an optimum time for action.

During the resolution of issues it takes the ability to recognize the sensitivity of the issue with the short-term and long-term importance and implications, and the timeliness of innovation and creativity; and to define pragmatic solutions that must supercede, not just coexist with, accounting. Such expectations are overwhelming and perhaps unsustainable. However, full accountability, which is assumed responsibility for incurred obligations, implies an appropriate interaction between accounting for outcome and utilizing the full range of our abilities. Accountability seems plausible if the outcome is not for society to expect everyone and everything to comply to a standard nor to be commonly equal.

As Barron notes, "A democratic nation, bent on equality in all things, is sure to judge a profession by its worst examples." It is within that democratic society that our professionals must function and develop and utilize their most creative abilities.

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The Fifteenth Mary McMillan Lecture
presented
June 17, 1980
Phoenix, Arizona
by
Florence P. Kendall, PT, FAPTA

Florence P. Kendall was the fifteenth recipient of the Mary McMillan Lecture Award in 1980. She received a Bachelor of Science degree in physical education from the University of Minnesota and a physical therapy certificate from the Walter Reed Army Hospital. She has been awarded the Lucy Blair Service Award. Ms. Kendall is the namesake and first recipient of the Henry O. Kendall and Florence P. Kendall Award. She has served on the Task Force on Bylaws for the American Physical Therapy Association. Ms. Kendall helped to organize the Maryland Chapter, was its first president, and served on numerous committees. She also has been awarded the Maryland Rehabilitation Association Certificate of Appreciation. Ms. Kendall is the author of Muscles: Testing and Function and Posture and Pain.
Fifteenth Mary McMillan Lecture

This I Believe

FLORENCE P. KENDALL, BS

whose life and works were a great inspiration to many people.

I regret that I did not know her personally, but some circumstances have linked us together. She started the physical therapy department at Walter Reed Hospital where I later took my training. One of her outstanding graduates from the course at Reed College in Oregon, Emma Lou Vogt, was one of my teachers.

Mary McMillan encountered many problems in establishing physical therapy as a part of health care in the Army after World War I. I feel that I have an understanding and appreciation of the difficulties she encountered because my husband often told me of the struggle that he experienced during that era to have physical therapy recognized in civilian hospitals.

Times have changed, problems are more complex, but unchanged are the drive, the dedication, and the faith in the future of our profession that motivated the leaders in the early years and in the decades that have followed.

The events that determine our destiny are often strange and unpredictable. During World War I Mary McMillan wanted to join the Armed Services and go to France, but she was denied the chance because of health reasons. Instead she left England to join her family in America, crossing the Atlantic in convoy and complete blackout. Soon after her arrival she was launched on a career that made her a leader of physical therapy in America.

As I read the account, I thought of the stories told me by my husband. As a young man of 18, he enlisted in the Army; crossed the Atlantic; went the other way, under blackout, with destroyer escort; the ship was saved because the would-be attacking submarine was destroyed instead, while crossing to England in the record-breaking time of six days. This young man went on to the front lines in France, was wounded and partially blinded. He returned to the United States to start his career as a student at the Red Cross School for the Blind in Baltimore. Upon completion of the course, he went to work at the Children's Hospital School and it was there, years later, that I met him. Often I heard him say, "The only true joy

Each year that you honor a member of the Association by this award, you are honoring, also, the memory of Mary McMillan.

The February 1960 issue of the Physical Therapy Review was dedicated to her memory. I have read and reread the story of her life, the tributes by her many friends, and the speech she gave at the 25th Anniversary of the Association in which she told about her work in helping to establish physical therapy in America and China. I would like to see these articles reprinted and made available to the physical therapists so they may read about this remarkable woman.

Florence Kendall

Mrs. Kendall is in private practice in Maryland. She conducts workshops throughout the United States and is a consultant to the Maryland State Board of Physical Therapy Examiners. Her address is 4920 Old All Saints Church Road, Bethesda, MD 20814 (USA).

The Fifteenth Mary McMillan Lecture was presented at the Fifty-Fourth Annual Conference of the American Physical Therapy Association, Phoenix, June 14-18, 1980.

Volume 60 / Number 11, November 1980
"Some beliefs are transitory and change from day to day."

In life comes from serving other people," and he found that joy in his work. Today you are heroes. A great honor on me and I accept it with deep gratitude. In my heart I am accepting this honor in my husband's memory, also, because our accomplishments in physical therapy were inseparable. There is something else besides physical therapy that we did together—we had a family. As the first wife, mother, and grandmother to receive the Mary McLellan Award, I have reserved the right to invite the members of my dear family who have come to help celebrate this special occasion. The announcement last year stated that the Mary McLellan Award is given to persons who have made noteworthy contributions to the profession. As I reflected on this statement, I thought how important it is to have the opportunity to see if one is to make a contribution, and that it is other people who provide the opportunities. I thought of those at the Children's Hospital School in Baltimore who listened to the ideas of physical therapists; the Maryland Chapter, which offered many opportunities to serve, the APTA, which opened the door for participation in the first, and several subsequent, regional workshops for continuing education for the chapters and districts throughout the United States that have provided some of the most exciting experiences of my career by their invitations to conduct workshops and the Maryland State Board of Physical Therapy Examiners, which continue to have me as a consultant. I thank all of you for the opportunities you have given me, and, were it not for such opportunities, I would not be here today.

The letter inviting me to deliver this lecture stated that the title and subject matter of the presentation would be left to my discretion. Many times I thought, "How much easier it would be if there were an assignment!" When trying to select a title, I felt like the man who jumped on a horse and rode off in all directions. The choice of title has given me the opportunity to express my beliefs and concerns about a variety of issues. Some beliefs are transitory and change from day to day in this ever-changing world. They are like the sand castles we build on the beach that wash away with the first big wave when the tide comes in. Some beliefs are strong like anchors and keep us from drifting; some are so firm they furnish the foundation for life itself.

There are ideas and concepts that we believe because they are expressed by persons whom we trust. We trust that they know the facts and speak the truth. In areas of study and practice outside our own sphere, it is important to be able to accept, and rely on, the teachings of others who are knowledgeable. In our own field of study and practice we must be the experts. We should not accept other people's doctrines, concepts, techniques, or methods without understanding them. To understand you must question. Beware of those who proffer to know and expect you to accept their dogma without question.

"There are ideas... we believe because they are expressed by persons whom we trust... Beware of those who profess to know and expect you to accept their dogma without question."

Some things we believe because the ideas or concepts are unchanging; even the names may be so precise that they have become a definition. A quadrilateral is a four-sided figure. A trapezoid is a quadrilateral figure with two parallel sides. A triangle is a geometric figure with three angles. But one day my faith in what I have been thinking was temporarily shaken. I had to do work with a trapezoid. To remind you of what a trapezoid looks like, consider an ordinary equilateral triangle, then cut off the top half by drawing a line parallel to the base and you have a trapezoid-shaped figure. While helping a granddaughter with her fourth grade math, I read in her book the definition of a trapezoid, which said it is a quadrilateral (ie. four-sided figure) in which at least two sides are parallel. I said, "Leslie, that definition is wrong. It should say, in which only two sides are parallel. If you say at least two sides are parallel, the other two could be, also, and that is not true of a trapezoid."

The next day Leslie came home from school and said that she had told her teacher that her grand- mother said the definition was wrong. The teacher politely told her that she understood, because she had studied math quite a few years ago, too, but this was "new math." Then I said, "Leslie, I bet your teacher..."
"...it should not be necessary to amend the Association Bylaws every year..."
right on the fence! Neither side appreciated that stand, but I had to come to grips with the issue and make decisions that I could live with.

I asked opponents not to oppose the Chapter in its action. As a member of an organization, there is an obligation to abide by the decisions of the majority. I read from Robert's Rules of Order Newly Revised and from Robert's Parliamentary Law the statements that addressed this issue. For me, the many reasons in favor of the proposal to remove the referral requirement finally outweighed the many reasons against it, and I spoke in favor of the amendment at a Senate Committee Hearing.

Our Association needs a realistic approach to the problems that persist, and I think that the answers are within our reach. In my opinion, the competencies required to treat without practitioner referral can be classified under two main headings:

1) Competency to evaluate and treat musculoskeletal disorders

2) Competency to recognize through history-taking, examination, and by signs and symptoms, that there is, or may be, other than a musculoskeletal problem present. To be able to make the distinctions need not require the ability to make a definitive diagnosis of the other problems.

No matter what else you believe, you must believe in yourself, and believe that it does matter how well you fulfill your role in history's ongoing stream of events.

...you must believe in yourself, and believe that it does matter how well you fulfill your role in history's ongoing stream of events."

By your own acts you help to shape your own destiny, and it is not wrong to believe that you, as one individual, can help to shape, in some way, great or small, the destiny of others.

Believe in yourself, even in the face of failure and defeat. Take heart from the example of this man:

He lost his job, was defeated for the legislature, failed in business, was shot by the legislature. His heart died. He had a nervous breakdown, was defeated for mayor. He was defeated for nomination for Congress, was elected to Congress but lost the renomination. He was rejected for Land Officer, defeated for Senate, defeated for nomination for Vice President, defeated for Senate, but in 1860 Abraham Lincoln was elected President of the United States!

In closing, I have chosen a verse from "A Psalm of Life" by Henry Wadsworth Longfellow:

"I am a small man all remolded;
We can make our lives sublime,
And, departing, leave behind us Footprints on the sands of time."

If you leave your own footprints, let them be such that others will be proud to walk in them. If you walk in the footsteps of others, choose those made by men and women whose lives inspire you to do your best.

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The Sixteenth Mary McMillan Lecture
presented
June 30, 1981
Washington, DC
by
Susanne Hirt, MEd, PT

Susanne Hirt was the sixteenth recipient of the Mary McMillan Lecture Award in 1981. She received a bachelor’s degree in physical therapy from the University of Wisconsin and a master’s degree from the University of Virginia. She has been President and Chief Delegate for the Virginia Chapter of the American Physical Therapy Association. Dr. Hirt has also served on the Board of Directors for APTA. She has spent over 30 years at the Medical College of Virginia, educating over 1,000 students.
Sixteenth Mary McMillan Lecture

"Progress Is a Relay Race"

SUSANNE HURT, M.D.

It is hard for me to put into words what it feels like to stand here before you as your 16th Mary McMillan Lecturer. I feel deeply honored and appreciate the message you sent me with this invitation.

OUR HERITAGE: THE MCMILLAN SPIRIT

We are convening this year for a very special conference, special in many ways. Above all, this is our 60th anniversary, and we are now approaching maturity. We are also celebrating the 100th anniversary of Mary McMillan's birth. We are convening in our nation's capital, and much of our professional history took place in this city. It also happens to be the city where I was introduced to physical therapy, during a brief visit with Col Emma Vogel, who at that time, just prior to World War II, was Director of

/**Notes:*/

1. Ms. Hurt is Chairman and Professor in the Department of Physical Therapy, Medical College of Virginia, Box 22A, Richmond, VA 23298 (USA).

Physical Therapy Services here at Walter Reed Hospital.

Col Vogel was one of Mary McMillan's most renowned pupils and later became her teaching assistant. She was well-versed in physical therapy education, and I want to see her to find out in which of the I3 existing physical therapy schools I could get the best education for the least amount of money. Col Vogel took one look at me and sent me off to the University of Wisconsin. She must have thought, I felt, that among other things, the University of Wisconsin would teach me how to speak the English language. And I am forever grateful to Peg Kohli, who did just that and taught me many other things besides. Col Vogel also was our 4th Mary McMillan lecturer and said of her former teacher and colleague:

"I vividly recall her enthusiasm, her interest in maintaining high professional standards, her warm personality, and her indomitable spirit."

The first time I met Mary McMillan was in 1946 at the Blue Ridge, North Carolina Conference, our 25th Anniversary. It was my first national conference, and we brought with us our first graduating class of the Medical College of Virginia. I heard Mary McMillan give her now well-known and memorable speech, "Physical Therapy On Three Continents." And I would like this 16th Mary McMillan Lecture to stand for a celebration of the McMillan spirit—that spirit that made all of us decide that physical therapy is an important profession, that we want to stay with it, and that we want to help make it great, come what may.

Mary McMillan insisted that if we want to preserve our profession, we can do it only by standing on our own merits, that we must keep ourselves updated, that we must believe in ourselves or others will not have faith in us. "However," she said, "this does not mean cockiness, which all too frequently comes from ignorance."

One of Mary McMillan's earliest concerns for our profession was that members must share each other through experience, through our needs, their difficulties, and their opinions. She said, however, "Life would be unbearable if we always agreed at all times." Advice we surely followed well. And to the clinician she said, "A physical therapist must have sympathetic understanding, and that does not mean 'masculine sympathy'—the physical therapist must know how to let a patient rest off steam and when to put in the right word: a physical therapist must never let a patient go without hope, and I do not mean false hope. . . ."
a chance to heal, and physical therapy aids nature’s healing.

While she served in the Army during World War I, Mary McMillan not infrequently took matters into her own hands. Reed College in Portland, Oregon, requested that she be given leave to take charge of 200 women who had registered for a war emergency course in physical therapy. When the War Department was slow in responding to this request, Mary McMillan was heard to say her superior: “If the War Department can’t make up its mind, I have made up my mind. It may mean my resignation.” The request was granted the next day. There is a familiar ring when we hear Mary McMillan say, “I tried to sell physical therapy and sell myself. It was a hard job; they had little time for the likes of me.”

There was a rebel spirit in Mary McMillan, frequently expressed with humor and tongue in cheek. In 1922, she said, “There is every reason to believe that after 25 years of struggle, that august body, the Senate of the United States, is about to recognize physical therapy as a necessary part of the US Army Medical Corps. Officers will then have salaries comparable to the Army and Navy. They will also be entitled to Army privileges—not merely Army rules and regulations as in the past.”

This spirit is our heritage! Previous Mary McMillan lectures expressed it in their own way. Jane Carlson spoke of our “willingness to attack the barricades of tradition and constraints,” and Maggie Knott let Constantine, in her closing revelation: “Turtle makes no progress until neck is out.”

DECISIONS TO BRING ABOUT CHANGE

I have chosen Mary McMillan’s phrase, “progress in a relay race,” as the title of this presentation because it flashed a multitude of pictures through my mind. A relay race, above all, stands for a cooperative effort. To reach the goal within the best possible time, participants must be firmly clued to each other; they must give to each other and take from each other. Each participant accepts responsibility for his own performance, and yet they share responsibility and expectation of shared rewards. This seems to me “Mary McMillan insisted that if we want to preserve our profession, we can do it only by standing on our own merits, that we must keep ourselves updated, that we must believe in ourselves or others will not have faith in us.”

PHYSICAL THERAPY

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“...we believe the time has come for us to take our destiny into our own hands and to bring about those changes that will be needed in order to upgrade our profession and to alter our professional image.”

a fine blueprint to guide our steps toward progress in our profession. Recently, as you have heard many times, we made two monumental decisions. Specialization may become officially certified, and entrance into the profession is to be on a postbaccalaureate level. All physical therapists, I believe, will be profoundly affected by this change for the better. I believe we will find these two decisions to be intimately related to each other, and that the results may prove to be inseparable. The basic message we are sending out with these decisions seems to say that we believe the time has come for us to take our destiny into our own hands and to bring about those changes that will be needed in order to upgrade our profession and to alter our professional image.

Now that we have decided what our goal is to be and are mapping out the path we wish to travel, we must, most importantly, believe, stay tuned to each other—we must hear and understand each other, we must give to each other and take from each other.

OUR FOUNDATIONS TO BUILD ON

As we move forward into the future, it may serve well to keep in mind briefly those colleagues of ours who ran this relay race before us, the pioneers of our profession, who laid down in fact and spirit the foundations upon which we are now building.

When our association was only seven years old in 1922, our founders published their first comprehensive and incredibly detailed analysis of our profession. They called it a “Study of Physiotherapy as a Vocational Movement.” Reading that document is a journey as fascinating as it is instructive. It is a voyage into a period of the profession’s history. It is a journey through a period when there were highly skilled new teachers and so had helped raise the standards of the profession. A unique and historically remarkable tribute was paid to those and other specialists through the Northwestern University Special Therapeutic Experiences. Each of the professionals gave its best so well as NUSTEP. A small, imaginative, and energetic faculty at Northwestern University under the leadership of Elizabeth Wood and Dorothy Vonk performed a miracle by publishing a book that will continue to serve us well for many years to come.

SPECIALIZATION

In 1981 we are now about to certify officially those physical therapists who possess clearly advanced knowledge and skills in an area of specialization. Surely we are adding a new dimension to our profession. The advanced clinical competencies and related knowledge required of the certified specialists are bound to become a part of our professional armamentarium.

Official recognition of specialization appears to have been the culmination of a steady growing interest among members in acquiring knowledge and skills that previously had not been available to them. During recent years, many of us have had opportunities to participate in continuing education programs offered by members of specialty groups. We have been exposed to new and challenging ideas and methods and evaluating patients and solving clinical problems. We have had opportunities to learn how the old and the new clinical approaches can supplement and reinforce each other to facilitate patient progress. We have seen clinicians and classroom teachers, beginning students and graduate students learn together and teach each other in study groups that are developing all over the country. In other words, something is happening inside our profession that is new, exciting and contagious.

The role of the specialists will be the exacting one. They will be well aware that to maintain that status, they must continue to acquire new knowledge and must continue to refine their skills. Specialists must assess their performance as clinicians and must collect data on their successes and their failures. A specialist knows that research is the lifeblood of the profession. This is how Aristotle put it: “It is the mark of an educated man to look for just as much precision in each inquiry as the nature of the subject allows.

Clinical specialists will not function in isolation. They will seek advice and information from other specialists, and they will seek consultation from all those professionals who can contribute to the care of their patients. The clinical specialist will become a role model, a preceptor, and a teacher of teachers. For those who view our community with the shared commitment of a pledge, the identification of areas of specialization will help to clarify the role of the physical therapist. It will help identify the diversity of the profession and it will speak to its usefulness within society. If we see specialization as an opportunity for personal growth, as I believe we must, we will need to establish a

“Specialists must assess their performance as clinicians and must collect data on their successes and their failures.”

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"The clinical specialist will become a role model, a preceptor, and a teacher of teachers."

A firm link between the basic educational process that leads into the profession and those processes that may lead, in a variety of ways, to advanced competencies.

THE EDUCATIONAL MANDATE

Our mandate for postbaccalaureate entry states that our present educational system is no longer adequate to meet the needs of the profession or of society; it demands change. Change is a process, and by the time it can be demanded openly of those who will be involved in that process, change inevitably is well under way.

The psychologist Rollo May recently said that in our day all professions are in the mode of radical change, that all professions require courageous persons to appreciate and direct that change. He further states that all professions are in need of persons with creative abilities, which will lead to the discovery of new forms, new symbols, and new patterns on which to build the changing profession.

Signs of ongoing change within our profession are many and readily visible. We can see changing patterns of practice, changing role models, and innovative designs for teaching and learning. We are rapidly developing a new vocabulary that must be learned so we can continue to talk with each other and will continue to understand each other.

We certainly do not lack in resources for renewal of our profession, nor do we lack creative minds to be our innovators. But we do need to identify precisely what changes we need to make in our educational system and how these changes are to affect the product of that system, the student. Though our motto is change, we may wish to reconsider the fact that the end product of basic physical therapy education is and should remain a competent physical therapy clinician.

Much responsibility and hard work will fall upon our program directors and our faculties. They will have to be able to convince the decision-making bodies of our academic institutions that change is needed, that it is feasible, and that it is well underway. Program directors will face obstacles and challenging encounters. These, however, should help strengthen our decision for change and help clarify our options and our alternatives. "Progress," Robert Kennedy once said, "is a nice word, but change is its motivating and change has its enemies." We may, quite possibly, find some enemies out there but hopefully one at a time.

We have no crystal ball to see where we will be in 1990. To give our present and future students all the advantages we now have available should be our first priority. Our skilled clinicians and our basic scientists must mingle as role models, as preceptors, and as classroom teachers. They must mingle in our labs, in our clinical centers, and in our classrooms. The interaction of these roles should create for the student an atmosphere that is conducive to asking questions, to decision-making, and to problem-solving. And these are the ingredients for good patient care as well as for seeking new knowledge. To do all this we need just one more essential ingredient and that is time. Students must have time to learn about the consequences of good and bad decisions. They need time to explore whether they really know what they think they know, and they need time to learn how to respond to gaps in knowledge in a creative manner.

Given that time, students will become decision-making professionals, comfortable in that role, and will be up front in that relay race.

Perhaps, at this time, the greatest value of our educational mandate lies in the fact that we clearly state that our educational system must not remain static. To be able to move into the future we must have the capacity for change and must be able to respond to change. To prepare students for the uncertainties of the future is indeed an essential ingredient of higher education.

If Mary McMillan were here with us today, I feel certain that she would say to us what she said to her colleagues while in the mode of creating a new profession: "What we need now is an unambiguous effort to establish high standards for our profession—and enthusiasts who know no bounds."

Selected Reading


PHYSICAL THERAPY

Dorothy E. Voss was the seventeenth recipient of the Mary McMillan Lecture Award in 1982. She received a bachelor's degree in physical education from Western State Teachers College and was graduated from the Harvard Medical School physical therapy program. She has been an editor of Physical Therapy and was a recipient of the Lucy Blair Service Award for the American Physical Therapy Association. Ms. Voss is a co-author of three editions of Proprioception Neurovascular Function.
Seventeenth Mary McMillan Lecture

"everything is there before you discover it"*

DOROTHY E. Voss, BEd

As I prepared for today, I reviewed the third and last edition of Mary McMillan's Message and Therapeutic Exercise. I realized that this 1932 edition included much of what I learned in 1938 and 1939. Many of you would recognize the muscle reeducation and muscle testing developed before 1920 for use with victims of anterior poliomyelitis. These methods were basic in the twenties. They are, for some, the basics of the eighties.

Mary McMillan, a "hands-on-the-patient" physical therapist, shared her knowledge and skills through teaching and publication. She wrote for students and for therapists... "...many of whom will not be satisfied until they have reached a higher standard of efficiency."

In Mary McMillan's time—before, through, and after World War I—physical therapy patients were most frequently those with musculoskeletal disorders. This is borne out in her third edition, with almost 250 pages on numerous clinical applications. Sixteen pages are devoted to the flaccidity of anterior poliomyelitis, whereas only six are given to the spasticity of hemiplegia and cerebral palsy. No mention is made of head injuries, or spinal cord injuries. At the time of World War I, these victims rarely survived.

From 1916 to 1955, anterior poliomyelitis demanded the attention of physical therapists. This was the "era of flaccidity," an era brought near to an end by the polio vaccines and by the dawn of the "era of spasticity." Advances in care of the severely wounded during World War II and of civilians at that time permitted survival of those with CNS trauma and the problem of spasticity.

Muscle reeducation and muscle testing with origins in orthopedics and with roots in anatomy included the grading of exercise from passive to resist, with positioning of the patient geared to anatomical planes for one muscle, one joint, one plane at a time. Fatigue was to be avoided. DeLorme and Watkin's progressive resistance exercise (PRE), developed by DeLorme during World War II, changed the avoidance of fatigue to the "overload principle." The roots of PRE extended into physiotherapy. The PRE method was useful for patients with musculoskeletal disorders and for those who had had poliomyelitis.

Neither muscle reeducation nor PRE was of benefit to those with spasticity. The overlap between the era of flaccidity and spasticity was about 15 years, 1941 to 1955.

The forties and fifties heralded the publication explosion in neurophysiology and the intrusion of the neurophysiological and developmental approaches of Kabat, Fay, Rood, Bobath, and Brunnstrom. These methods had their roots in neurophysiology and were designed for treatment of cerebral palsy and patients with spasticity, rigidity, or ataxia. Isolated muscle training was of no benefit. The individual muscle served the total pattern of posture and movement.

McGrail, in 1962, referred to the arrival of the "age of scientific integration" to replace the "age of scien-
"The forties and fifties heralded the peak of expansion in neurophysiology and the intrusion of the neurophysiological and developmental approaches...."

Are we prepared in 1982 to understand the integrated functional aspects of the visuomotor system? Are we ready to consider the impact of changing functional aspects of motor behavior? To the learning of sport skills? To the act of reaching to the upper shelves of a cupboard? To the concept of clutter, of one fragment of function? Of the motor spindle? Of the rotator cuff? Appropriate exercise programs for today's and tomorrow's patients will be derived by looking at the whole and selecting functional combinations that make sense for each patient. And—everything is there before you discover it.

**EDUCATION**

"The unquestioned acceptance of traditional methods is one of the evils from which physical therapy education suffers." Heberbrand, 1953

Does Heberbrand's statement apply in 1982, almost 30 years later? To try to determine where matters stand, I studied the results of these surveys, none of which was done for this purpose. Two APTA surveys, the Textbook Survey of 1975-76 and the 1980 Curriculum Survey of Physical Therapy Assistant (PTA) Programs—were very useful. The chief was the 1980 survey conducted by the newly organized "Faculty for Pre-registration Neurological Facilities (FPNF) as taught by Voss." The text and PNF surveys were directed to the PTA and the PFA participants.

The Textbook Survey yielded a 56 percent response from PT programs, and the PNF Survey brought an astounding 62 percent return. The PTA programs responded to the Textbook Survey with 55 percent, but the PNF Survey attracted only a 38 percent response. The shift by PT programs toward approaches based on neurophysiology and normal development is evident from the results of the Textbook and PNF surveys. The Knott and Voss book on PNF was the leading choice for "Exercise Under Exercise in the Textbook Survey. In the PNF Survey of PT programs, the major approaches taught ranked from highest to lowest: traditional, PNF, Baboth, Rood, Brunstrom, and Fey.

The PNF Survey showed the median range of hours given to teaching PNF at 20 to 29. In 1965, pre-NU-STEP, the average was only 6 hours. Thus, a shift toward newer methods of learning and a slow transition is apparent in PT programs. Not so in the PTA programs. According to the APTA Curriculum Survey, 4 to 9 hours was the median range for PNF, whereas that of the PNF Survey was 9 hours or less. This is in agreement with the Curriculum Survey. The PTA programs seem to be second in a two-class system, or in a pre-NU-STEP state of traditionalism. As Margaret Knott wrote in 1973, "Certain things that were taught 50 years ago must still be taught merely because they have always been taught."

**Neurophysiological Approaches**

"The concept of total patterns of motion from which partial patterns are individualized should be the basis for all therapeutic exercises," Jacobs, 1960

The APTA's Textbook Survey listed the Knott and Voss book under Exercise, whereas Baboth's book and Brunstrom's on hemiplegia are in the Neurological Problems category. The latter are clinical books (PNF needs clinical books. Please write some.) The APTA Curriculum Survey included PNF under Exercise and Baboth, Brunstrom, and Rood under Facilitation. That's Educational Division recognized PNF as an approach to therapeutic exercises.

The Knott and Voss book, second edition, presents PNF as a developmental approach. Miriam Jacobs recited in me in 1951. The sequence of total patterns, the combination of individual patterns for use in total patterns, and the individual patterns themselves are the developmental approach. Dr. Kabat, from the early forties until 1951, through his clinical and research effort, discovered the spiral and diagonal patterns of translation in less than 10 years. It took me from 1951 to 1966, 15 years, to say, "Diagonal direction elicits diagonal patterns." I had happened upon Gesell's sequence of the child's use of a crayon: from scrawling, to vertical, to horizontal, to circular, to oblique (diagonal). Gesell pointed out that the same sequence applies in the development of visual behavior and perceptual concept formation, as well as postural behavior. Gesell was on to something before I discovered it!

In 1972, Margaret Knott said, "Gesell gave us a tool to provide a baseline for evaluation, but why did we continue to use that technique (muscle reeducation) for functional improvement?" She went on to say, "Muscles do not work in an isolated way." Mary McMillian referred to "... the reflex movements of everyday life..." and stated that in muscle reeducation, isolation of muscles is of importance. Fixation and support of the part... is essential to bring into play the desired muscles. Mary McMillian also stated, "The balance of antagonists and protagonists is brought about by the slight continuous contraction of opposing muscles." If she used these terms in the twenties, why did "antagonistic" and "agonistic" seem so strange in the fifties?

In 1956, Catherine Worthingham expressed concern by saying, "Two of the greatest problems with which present day physical therapy education is faced are the rapidly increasing body of basic knowledge ... and the consequent development of new techniques of treatment which must be presented in their proper relationship within a curriculum which already is overcrowded." Have these two great problems been solved during the past quarter of a century? Of the "new techniques," PNF, with its base in normal development as well as in neurophysiology, has extended our concepts of human motion beyond the anatomical planes into a living world of pattemed movement—a world in which athletes use the linkages of diagonal patterns and athletic trainers know it.

Patients with musculoskeletal problems have always been a major segment of the patient population. A low incidence of anterior polioymyelitis continues. Nevertheless, this is the era of spasticity that demands adequate treatment for an ever-growing patient population. It is the era of vascular accidents, violence of all kinds, and the usual diseases that produce spasticity.

To effect a change in physical therapy education, that is, to develop a new base, requires change in basic content. In this era of spasticity the physical therapy student must develop self-awareness skills, habit patterns for use, and the ability to think and to develop a new approach. Are the academic faculties prepared to teach PNF? As a method of therapeutic exercise useful to all patients? Teachers are inclined to teach as they were taught. I was taught individual patterns first. One of my reasons for returning to the faculty at Northwestern University was to find ways to teach more, and better, and in less time.

How many total patients has the child learned before he masters the buttoning of both hands buttons? To the physical therapy student, the individual patterns taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try to pattern taught first are both hands buttons. To try...
and 9 were taught by those who teach according to my method of teaching. The total number of participants was 47.

For the patients taught in 1970 to 1981, a 5-year period, 14 clinical workshops on selected activities for the hemiplegic patient were held on weekends. Participants numbered 403, prior training in WP was not required. The total patient approach was used.

For these sessions taught according to my method, the ratio of faculty to students was 1:5 or 1:3 for skill training. One of the by-products was the training of more teachers. Those who knew PNF but had not taught were invited to assist and thereby gained skill in teaching as well as in training.

Not for men only. In 1951 at Kaiser-Kaiser Institute (now Kaiser Foundation Rehabilitation Center) in Vallejo, 10 of the 20-examine physical therapists were men; 38 percent of the group. All were trained in the United States. Later, I planned and taught PNF short-courses. I hoped that a comparable number of men would attend. So at Northwaters, the five-year series from 1968 to 1973 attracted 190 therapists to the two-week introductory courses. Of the 190 examined, less than 6 percent were men. About 10 years later, in three courses (1985, 1986, and 1989) less than 1 percent were men. I was quite disappointed and wondered the meaning. Everything was there, so I discovered an answer in my files.

First observation: Men preferred PNF courses held at "odd times," a series of weekends or evenings. Of 110 participants in the 1970-1976 courses held at 11:30, 17 percent were women.

Second observation: Men did not prefer "odd times" for weekend clinical workshops. Of the 403 participants in 14 workshops (1975-1981) on selected activities for the hemiplegic patient, 8 percent were men. The neurological patient apparently reduced male participation by 9 percent.

Third observation: PNF coupled with joint mobilization (JM) for orthopedic patients is of greater interest than the neurological patient to men. Of the 72 participants in three such courses (1970, 1979, and 1980), almost 28 percent were men.

In March 1982 I sent a query to four teachers of JM. They gave favorable comments on coupling, and all agreed that men prefer JM and short-term orthopedic patients. Do these preferences reflect the priority of men in performance of mechanical and spatial tasks as reported by Heidebrandt and by Payton?

Play behavior and parental behavior still show cultural differences. Fathers play with their sons; they talk with their daughters. Mothers nurture their children. Women are superior in nurturing. Until recently, men have given little time to nurturing or filling the mother's role.

Boys need space and excel in spatial tasks, a function of the right cerebral hemisphere, whereas girls excel in verbal tasks, a function of the left hemisphere. The sexes are not equals. Course titles listed in PHYSICAL THERAPY do not necessarily indicate emphasis on teaching skills. Certainly PNF and JM are skills courses. In PNF and JM there are precise manual contacts to be learned. There is no stress on independence. Interaction with the patient in PNF is active, in JM, interaction is passive. Mary McMillan wrote, "A passive movement, therefore, is one which is performed by the operator while the patient relaxes as much as possible."

Propriospinal neuromuscular facilitation coupled with JM offers relaxation and restoration of a balanced pattern through use of rhythmic stabilization. This is a task that can be done. As taught, understanding of the patient's problems should be given the observer the patient's voluntary performance of total patterns, combining patterns, and agonistic individual patterns in each diagonal. Propriospinal neuromuscular facilitation coupled with JM is a combination that makes sense.

Stills and alternatives. Where should continuing education courses be held? At night or for universities? In the clinical setting? Or elsewhere? Women are reported to be in short-term and intensive as taught by me, self-learn and still be taught by Knott. I was in the university where education is, and the patient was available only because of the highly structured approach. Another framework, the selection and sequence of content must be limited to activities that can be learned readily and then used with safety. The sequence must promote learning.

Knott was in the clinical setting where the patient is and the patient comes first! The nature of the patient population influences what is taught and when it is taught. Education of the patient must be practical at a given time. In the clinical setting, the patient is a focus, in the classroom, the teacher is a focus. In the university setting, the patient has the education. Other PNF courses have been taught in a number of places by a number of skilled therapists. But during the past 20 years, continuing education in PNF has been the relative small number trained, made a minimal contribution to patient care and a minor role for teachers. Continuing education as an alternative to teaching PNF as a method of therapeutic exercise in basic education, is not the answer. Continuing education as a care for obedience is the only answer.

PATIENT CARE

As we leave education, we must enter the world of patient care. Success with a patient is the ultimate satisfaction for the physical therapist who has made a difference. Mary McMillan said and it is true, was, and is not as good as therapy. Exercise should not be confused with orthopedics or an edifice branch of medicine. The intelligent use... in a valuable asset in preoperative and postoperative work, in many medical cases, in various types of paralysis, and in cardiovascular conditions. As any medical prescription is changed according to the progress of the patient, so in physiotherapy, the same rule is applicable.

Low Back Conditions

Mary McMillan described what is known as "Williams' flexion exercises." A sequence or regimen learned by physical therapists trained in the United States. She also commented on the use of resistance, but not specifically for low back conditions. External resistance may also be applied by means of apparatus as well as the human hand, but since the latter type is capable of more sensitive grading, it is considered preferable.\footnote{In some cases, the therapist may wish to consider using a "Williams' flexion" technique.}

Humans hands were the tools used by Isadore Brown. These patients, treated a series of 106 patients with low back problems, many of whom lacked sufficient strength after treatment according to traditional principles. Brown's "Intensive Exercise for the Low Back" was based on PNF's upper and lower trunk patterns. Therefore, a treatment table. A harness and gown was practiced independently during the treatment session. A question arises as to how patients to 10 months after discharge and was returned by 65 percent of the patients. Of these, at least 75 percent reported improvement.

In 1970, while I was teaching at the University of Texas, I discovered that women were enjoying working with a tall, well-built man whose low back lacked mobility. The students worked with him on the mat. They pulled, pushed, pulled him gently as he rocked on hands and knees in all directions. Where there was a range of motion, the therapist used rhythmic stabilization. Each of the three techniques has a turn. As I watched, I could see improved mobility. This patient attended a seminar with his therapist that afternoon. The therapist was amazed when he saw the patient. The increased freedom of movement was obvious.

Children rock automatically in various postures according to McGraw. This activity fosters... integration of control of muscles of posture in both hand and postural girdle regions.\footnote{In some cases, the therapist may wish to consider using a "Williams' flexion" technique.}

Isadore Brown's program was carried out before PNF was taught as a developmental approach. Today, the patient may work by the mat to upright in a program less stressful for patient and therapist. The difference lies between the first and second editions of the Knott and Yoss book.

Flatfoot

Mary McMillan presented several series of exercises for flatfoot. The ingredients in common were: a) plantar flex, invert, dorsiflex and b) grasp heavy towel with heel, bend, heel, floor, draw with towel inward. Grasping a towel was to the foot as the "pelvic tilt" was to the low back: traditional, basic, and orthopedic. In my educational experience, students did rise to anticipate the beginning of each gym period. The development of the longitudinal arches in these school children was impressive.

At the Massachusetts General Hospital in 1946, I worked with six adolescents having severe sustained spasm of the peroneal muscles. Two calves could not be inverted actively or by passive motion. Dr. Delorme was there and so was his ankle-exerciser. At the time, a load of weight could be used in two locations at the same time. I loaded for resistance to plantar flexures and inverters.

This was the answer. Only one of these children wanted to surgery. It was pre-PNF exercise, but I called it diagonal two, the extension-adduction-external rotational pattern. Everything is there before you discover it.

Painful Shoulder

Mary McMillan's exercises for the shoulder were traditional, basic, and orthopedic. Exercises while standing were a) fingers crossing up the wall; b) swinging 1-b-dumbbells, small then larger circles, using both arms; c) resistive exercises in order: flexion, extension, abduction; d) forcible stretching if adherences present.
"In the clinical setting, the patient, in a sense, becomes the teacher. In the therapy setting, the patient reinforces the teacher."

In October 1967, those present for a PNF short-course and I attended a lecture by Dr. CE Oxnard whose topic was "A Canonical Analysis of Nine Variants (dimensions) of the Scapeus."

Dr. Oxnard, from Britain but then at the University of Chicago, added a new dimension to my treatment of the painful shoulder. Dr. Oxnard's extracts were as astounded as they were informed. He said, "The scapeus is a flat, three-dimensional bone." I was with him all the way.

The scapeus, he said, was the shoulder's "motor," which activates the shoulder muscles. The biceps, a quadruped, subjected to pressure to compress the scapeus. The semibrachialis combines tonic and compressive force. Miss Scapeus lies between that of the brachialis and the quadraped. Oxnard said that the more forces superimpose, the more efficient the scapeus.

From 1967 onward I added a brachialis-like activity to all demonstrations with patients having painful shoulders in the Boston area. In no instance did the demonstration fail to produce improvement. The activity was this: The patient mounted the wall bars. With their hands grasping the horizontal bar firmly, the foot controllable to the painful shoulder was allowed to hang free. Next, the hand of the pain-free upper extremity moved quickly then slowly from one rung to another as the painful extremity held fast to prevent instability without pain. The tense muscle were at work. Hellebrandt's simultaneous static and dynamic exercise was used; one side holds as the other moves as PNF's technique of reinforcement.

The same exercise is used in the quadrapedal weight and-arms posture. A dumbbell or weighted rubber band may be used for the dynamic activity while the painful shoulder bears weight effecting the compressive force on the quadrapedal shoulder.

The first person who came to mind after Dr. Oxnard's lecture was my brother. Several years before, he had told me of his painful shoulder, which had plagued him for many years, and of his "accidental cure." After retiring from his business, he took a job as a foreman for US Gypsum Co. As he was supervising the loading of a freight car, he lost his footing, caught hold of the door frame, and hung by one hand on the same side as the painful shoulder. When he recovered support, he was aware of soreness in his shoulder. Later, the surrounding area was black and blue.

"From the day he hung by his hand, he felt no pain in his shoulder."

In 1977 I discussed a presentation of treatment of a painful shoulder by a staff physical therapist at Massachusetts General Hospital. The therapist had used joint mobilization as well as selected PNF procedures. The patient, a young man, was making progress but had not gained full range of motion. Then, one day he felt the urge to stretch. He jumped, grabbed the door frame at home, and hung by his one hand. When he dislocated his shoulder, he was markedly improved. The self-initiated brachialis activation to the hanger and swinger position, a one muscle group at a time. Surburg, physical educator and physical therapist, surveyed 111 athletic trainers, 28 percent of whom were physical therapists. The PNF techniques most frequently used and found most effective were repeated contractions, C-R, and H-R. Surburg commented, "Trainers have noticed many of these patterns (PNF) in sports activities and have included them in exercise programs."

"During 1952 and 1953 I analyzed the spiral and diagonal patterns, a long-term task. This information was first published in 1954 in the British Journal of Physical Medicine and subsequently in the Knot and Yoos book. In 1960 a psychological level, of PNF was reported by Sullivan and Portney. Limited to superficial muscles of the shoulder, their work was limited to the analysis of the deltoid and unrelated portion of the posterior major muscles."

"In 1941, as physical therapist to the Louisiana Department of Health, I met Miss Teo Mother in the Parish Health Center in Alexandria. Jennie said she had never walked. What to do? I thought of Miss Teo. We did. Gallop 'Trot' and the leg Mother practiced. She would work with Jennie. She would bring Jennie next month."

The next month Jennie was there. I couldn't believe Jennie was walking and very well. I turned to her mother who was bearing. "What did you do?" "You showed me. I have six children at home. I made each one do what you showed me, every day!" I learned from this good mother that "everything is there before you discover it.""
inherent features of man's development. These most advanced movements are necessary to life's activities including work and play. They will not go away!

Again, I thank the whole PT world and, most especially, you who are here, and those of my friends with whom I wouldn't be here today.

Let each of us, let all of us, redevote ourselves to patient care. In so doing, we will follow the ideals of Mary McMillan, our first leader, dedicated and respected, a professional with vision. The words of William Blake seem appropriate. "If the doors of perception were cleared everything would appear as it is, infinite." And, lest you forget, "everything is there before you discover it."

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The Eighteenth Mary McMillan Lecture

Presented June 15, 1983
Kansas City, Missouri

By

Nancy T. Watts, PhD, PT, FAAPT

Nancy T. Watts was the eighteenth recipient of the Mary McMillan Lecture Award in 1983. She was graduated from Grinnell College with a Bachelor of Science degree in biology and received her physical therapy certificate from Simmons College. Dr. Watts received her master’s degree and doctorate from the University of Chicago. She has served on the Committee on Graduate Education, the Board of Directors, and the Task Force on Educational Standards of the American Physical Therapy Association. She has also served as a Trustee for the Foundation for Physical Therapy, Inc.
Eighteenth Mary McMillan Lecture

The Privilege of Choice

NANCY T. WATTS

The McMillan Lecture is a time for remembering. My own memory is crowded with thoughts of the very first meeting of the American Physical Therapy Association I ever attended. It was in 1948 in Boston. This was, I believe, the first year the Association admitted student members, and I was one of those new students. The meeting was held in the Women's Industrial and Educational Union building overlooking the Boston Common. In those years the Massachusetts Chapter held dinner meetings, but as students none of us could afford the meal, so we waited in the hall outside. When the moment came for the meeting to start, the door swung open and we were ushered in. We quivered and quaked. The aroma of Yankee pot roast still hung in the air as we made our way over the creaking floor boards of that old dining room. We paused in review before the regular members, including several Reconstruction Aides who were still vigorous and active in the Chapter, and finally reached our seats, a row of rather uncomfortable folding chairs at the back of the room. What I remember most clearly is how excited I was. I had no doubt that this was the beginning of something big and that the people in that room were important people doing important things. Now I have been known in the years since to sleep through an occasional APTA meeting, and even to misbehave in other ways, but I have held onto that feeling of excitement and the belief that as physical therapists we are important people, doing important things.

The McMillan Lecture is also a time for saying thank you. My trip from the back of that meeting room to the front of this one has been a long one and a journey I could never have made without all sorts of help. Let me tell you about just a few of the people who have helped me most because I think you will see the fingerprints on many of the ideas I want to share with you in this lecture.

The first was Shirley Cogland, my principal instructor in the Simmons College physical therapy program. I remember her, especially, for the way she taught her students the importance of rationality, of logic, of having reasons for everything that was done in treating patients. For Shirley Cogland, it was never enough that you were doing the right thing with your patient, you had to be able to explain why. That was a very sound grounding for a young therapist.

The second was Sarah Rogers, Education Consultant in the APTA National Office. Sarah was the first to get me actively involved in the Association and to teach me about the importance of organizations in educational affairs. By then I had become interested in teaching, but I saw it as something you did by yourself. It was only when I met Sarah that I began to see how influential organizations such as the APTA could be in determining what support an individual teacher had and what standards he or she is expected to meet.

As I became more involved in APTA activities, I had the privilege of working with an extraordinary group of friends on a variety of committees and on the Board of Directors. It is difficult to single anyone out, but let me try. Charles Magistro has had an enormous influence on my thinking and values. He represents for me the true career clinician, one who never loses a sense of challenge in treating patients. His skill and energy as a clinician have reminded me that whatever issues our Association may debate, sound care of individual patients is at the heart of everything we stand for. As President of the APTA...
and Chairman of the Board of Trustees of the Foundation for Physical Therapy. Charles has also taught me how much a leader can accomplish when he is filled with new ideas, and able himself to suggest practical, yet fresh, ways of looking at issues.

First step is to use the past 30 years, another person who has had a profound influence on my career. Her name is Barbara Adams. She entered my life as my "how" when I seek my first job outside the United States. She was Director of Rehabilitation at a large hospital in Mexico that included the physical therapy school in which I taught. During my years in Mexico, Barbara helped me learn to adapt my American ways to the very different needs and style of an unfamiliar society. She has since become the very best of friends and through her personal example has taught me the most important lesson of my career, a lesson learned from the nature of humanism in health care. Not only has she shown me that humanism is essential, she has helped me see that to be a humanist calls for much more than fancy theories, big words, and an intellectual understanding of patients' needs. The essence of humanistic practice is a continuous series of small, practical actions that say to each person with whom we work, "I think you are important, and I care about you."

For all these lessons I am thankful. They have made my personal journey possible and shown me why it is physical therapists can, in fact, do such important things.

CLINICAL DECISION ANALYSIS

The McMillan Lecture is more than an occasion for sharing memories. It is, most of all, a time for looking ahead to the future. My subject for this lecture is the privilege of choice. I want to begin by looking at the process of choice itself and by describing a way of analyzing it and thinking about this process. Then, I'd like to share some opinions about how it should be. As we examine some of the important decisions, we will need to make about our profession during the next several years.

Let's begin in the clinic. The most important choices we make as physical therapists are those we make about treatment for our individual patients. How can we look at the process of clinical judgment we use? How can we judge whether it is strong or weak? During the past several years, our graduate students at the MGH Institute have been using a method called clinical decision analysis to study the way we and other experienced clinicians decide how to care for patients. This is a systematic method for making important, practical decisions about action when many of the things that determine which action is best are uncertain and difficult to predict.

Once we have done this, we are ready to think systematically about the best way to achieve what we want. The use of decision analysis recognizes that choice of an approach to treatment is not a single, global decision made at the start of our work with the patient. It is a series of choices, actions, and events that unfold over time as treatment progresses. Some of the actions and events are under the control of the therapist, but many are not. Yet most can be anticipated, described, and thought about in a logical way.

Our next job, then, is to summarize this complex scene clearly enough so that we, and our colleagues can understand its sequence and judge it in logic. We begin, quite obviously, by asking ourselves, "What is the basic problem I need to work with?" What type of patient is it? Our answer should describe not only what we usually do, but also what other options we have for realistic first steps. Then, we can work down the list of alternative actions to ask ourselves for each one of them, "If I do this, what might happen?" Here again, our description of possible consequences of our actions need to include both the responses we hope for and those we fear. Because we are never entirely certain what our evaluations will find or how our patient will react, each alternative for action is ordinarily followed by a list of at least two different short-term effects.

With this list in hand, we can go on to the next part of the sequence and consider each different type of patient response to ask ourselves, "If my first step in treatment produces this result, then what? What are my options now for the second step and what different results might these actions produce?"

As we move through time, describing the clinical choices we must make, and the different ways in which the patient responds, the process becomes one of a series of complex, branching paths-fashioned not just different directions from our initial decision. This is easiest to see if we diagram the thought process on paper in a format called a decision tree. As we follow each branch of the tree toward the point we chose as the limit for this analysis, we can begin to construct systematic approaches to help us anticipate outcomes we wanted earlier. Now we can begin to see what difference our choices may make.

We may find that quite different therapeutic approaches appear to lead to quite similar outcomes. As an example, there is usually more than one way to achieve any therapeutic goal. On the other hand, the same treatment approach may lead to very different outcomes among individual patients whose responses vary along the way. The purpose of this exercise is, of course, to help us find that treatment that is likely to work best for each patient. To do this requires several additional maneuvers. First, each time we make a choice about how to act, we must "play the odds." Because we can never be entirely sure what the consequences of our therapy will be, we must base our planning on estimates of the probabilities that different consequences will actually occur. The action we prefer is the one with the highest probability of success and the lowest risk of disaster. When the odds look good, however, we are never certain that these therapeutic gambles will turn out. This means we must build continuing evaluation into each patient's treatment plan and keep our eyes open for disappointing responses and dangerous surprises. We must be ready to change direction if our expectations turn out to be wrong.

Finally, once we have thought about each separate decision our clinical problem involves, we must step back and try to see how all the pieces fit together. At this point, we become convinced not only with the potential benefits each strategy offers but also with its probable cost. Some paths of action take longer, others place greater demands on the emotional reserves of our patients, and others require specific facilities of expertise or the support of others. We should not always choose the method that produces the very best results. That may be unrealistic. Our preference should be for the treatment method that promises the most favorable balance between resources required and results expected.

This is a very sketchy description of the process of clinical decision analysis, but I hope it is clear enough to let you see the big bones of the method.

APPLICATION OF DECISION ANALYSIS IN PRACTICE

What happens then if we apply this sort of thinking to some of the problems we face on a daily basis? One of the most important today. First, let's see how off it focuses our concerns for the quality of patient care. Quality care is successful care. Is clinical decision analysis useful to help us decide which treatment decisions actually get us the best outcomes for patients? To answer that question, I have interviewed several experienced clinicians whose skills and success I admire most. I am struck by how very informal and unself-conscious their clinical judgements are. A very high proportion of the master clinicians' choices seem to be made intuitively rather than directly from learned analyses, much so that at times the success they enjoy seems...
almost magical. Their treatments are certainly not routine but they respond to cues I miss, draw on experience I don’t have to predict how each patient will react, and make use of combinations of treatment I had not even considered. Those of us who are less skilled have great difficulty in seeing how this success is accomplished, for so much of the judgemental process takes place in the therapist’s mind and so is invisible to us. The4nteresting, and disturbing, thing is that this process may be almost equally invisible to the master clinician himself. As I ran around making life difficult for my expert colleagues by quizzing them on how they decide what to do with their patients, I find few of them can tell me in any detail. They seem to have become so accustomed to the process that they can carry out even the most complex manoeuvres with seeming ease without consciously focusing on each step in the process.

“We need to stop from time to time to think carefully about some choices we now make largely through intuition.”

Should this bother us? Certainly it seems efficient. I wouldn’t want to have to concentrate as seriously on what each car is doing as I first did when I learned to drive in heavy Boston traffic. Why then insist on expert clinicians using an artificially self-conscious treatment planning process? I agree we would all be better off if we were to analyse each clinical choice we make in such detail, but I do think we need to stop from time to time to think carefully about some choices we now make largely through intuition. There are several reasons for doing this.

First, although intuitive choices may be excellent, this is a high risk method of practice. Without specific, time-limited goals, our risk feeling satisfied with treatment plans is not so much a crisis as it is a crisis in what we are accomplishing vs. very little.

Intuitive process also makes us susceptible to therapy-induced tunnel vision: it can lead to consistent use of second-best-methods, selected largely on the basis of habit, convenience, or the glamour of the experts who endorse them rather than on proven effectiveness and consideration of fresh alternatives.

We also risk boredom and burnout whenever we see the same clinical problems over and over. This is sure to happen if we stop using our minds to analyze individual differences and simply go through the motions of an unthinking routine for treatment.

In the end, even if the good clinician manages to avoid all these traps, intuitive practice is still bad for our profession. It stunts our growth and frustrates our efforts to share our expertise. How can we hope to compare, question, challenge, teach, or build on treatment approaches we cannot even describe?

I believe we need to cut away some of the mystery and ask such expert groups as the special interest sections and clinical study groups being established in many cities to analyze formally the process of clinical judgment their expert practice entails.

If we do try to be more analytical about our practice, we will quickly be confronted by an embarrassing problem. Such analysis depends heavily on our ability to estimate the probability that each alternative response to treatment will actually occur. Probability estimates have no possible sources—logic and data gained from past experience. We do quite well in the logic category. Our professional education is rich in scientific studies that provide us a good foundation for predicting what effects a specific intervention should have. Experimental research in physical therapy also helps expand our understanding of basic mechanisms for response and so strengthens our ability to make logical clinical predictions. But logical applications of the findings of basic science are an inadequate basis for effective clinical practice. We need extensive descriptive data as well. The importance of the scientific revolution has been described by saying that if an Aristotelian philosopher wanted to know how many teeth a horse had, he would lean back, close his eyes, and use all his accumulated knowledge about the nature of horses and teeth to figure the answer out by logic. When a modern scientist wants to know how many teeth a horse has, he opens the horse’s mouth and looks inside. I think the same can be true in physical therapy, that we need to supplement our valuable experimental studies with equally valuable but very different descriptive research. We need to find out what happens when the mechanisms we have studied in carefully controlled settings for the real clinical world. I hope soon the Foundation for Physical Therapy will be asked to support many more such studies, studies that describe the natural history of the disorders we treat and the varied ways in which real patients respond to different types of treatment. Until we do this, our experience can only be summarized in the form of impressions, and we risk seriously misjudging what has actually taken place.

One way to clear the clouds of ignorance and data we need would be through multi-center studies in which therapists from a number of different facilities pool the results of their work with patients. Our physiotherapists colleagues in Britain have already begun such work.

“Logical applications of the findings of basic science are an inadequate basis for effective clinical practice . . . . We need to find out what happens when the mechanisms we have studied in carefully controlled isolation collide with one another in the chaos of the real clinical world.”

“Decision analysis emphasizes clear descriptions of outcomes, broad considerations of alternatives, and objective evidence about probabilities as the bases of planning.”

So have the groups of therapists in this country who have worked together to develop audit criteria and record systems that allow standardized quality assurance data to be collected in several different facilities. Descriptive studies do not require us to impose a single approach to treatment on many patients. What we want to know is what happens under different conditions of treatment. However, we do not need to develop standardized systems for recording how we treat patients and for observing and recording the results of our therapy. Such a data base will not eliminate uncertainty in planning treatment, but it will greatly reduce our present reliance on guesswork, impression, and opinion.

APPLICATION OF DECISION ANALYSIS TO EDUCATIONAL CONCERNS

Let’s shift our focus and think about how decision analysis might apply to our educational concerns. This process emphasizes clear descriptions of outcomes, broad considerations of alternatives, and objective evidence about probabilities as the bases of planning. I am proud that in professional education our campus has been on the forefront of this for the past several decades. Since the fifties when we began learning to write clear behavioral objectives for our courses, we have judged educational processes on the basis of the learning outcomes they can help us achieve. In the fifties when we revised the badly outdated standards for accreditation of our schools, we made a dramatic change in the way these standards were written. The earlier standards for an acceptable curriculum had specified the minimum number of clock hours of instruction that were required in each different content area. The new standards described the required curriculum in terms of the essential components it should provide students opportunities to learn. Through the fifties and into the sixties, our educational focus has continued to be on outcomes. In developing our degree program, we built a book in work on certification of clinical specialization, and in the Association’s present major effort to develop a competency-based licensure examination. We have recognized that schools may use very different curriculum designs and that graduates may add to their entry-level skills through different types of continuing education and experience. We have evaluated the acceptability of these different instructional processes by looking at what they accomplish. This focus on outcomes has helped us develop a more rational fad and allowed us to maintain a healthy diversity of choices that allow students and graduates to select programs that match their individual style, needs, and resources. In education as in practice, we have recognized there is often more than one possible road to success.

All of this makes it surprising—and upsetting—that we seem to be doing an almost about-face. We are now planning a very process-oriented move in education that will sharply limit the options an individual student has for gaining the skills needed to enter professional practice. I am talking, of course, about our decision to eliminate all educational programs that do not lead to a post-baccalaureate degree.

“Throughout the seventies and in the eighties, our educational focus has continued to be on outcomes . . . . We are now planning a very process-oriented move in education that will sharply limit the options an individual student has . . . .”

Certainly one value of decision analysis is that it helps us prune out paths of action that are consistent failures. Perhaps baccalaureate and certificate programs really are incapable of producing the best educational outcomes for today’s entry-level practice. If this is true, these educational processes should be discarded—however well they may have served us in the past. What bothers me is the way we have gone about making this decision. I have yet to see any data that show this move is necessary. What objective evidence do we have that graduates of baccalaureate and certificate programs are actually unable to practice safely and
effectively, unable to grow with experience to meet the challenges of tomorrow, or significantly less competent than graduates of postbaccalaureate programs! We are often subjected to statements explaining the logical superiority of the postbaccalaureate process and plenty of surveys that ask interested parties how they feel about this change, what they are doing to get ready for it, and what problems they think it may create. All these are interesting and useful, but they are not a substitute for objective evidence about what the different types of programs actually accomplish. In education, as in practice, I think it is time we opened the horse’s mouth and counted a few teeth.

This means we will need to make up our minds about exactly which clinical skills really are essential for a new therapist. Despite our decades of work in this area, our House of Deliberation is still unclear. In making these very practical decisions, we find ourselves caught up in a broad and confusing series of choices that concern the vision we have of our profession.

"In education, as in practice, I think it is time we opened the horse’s mouth and counted a few teeth. We will need to make up our minds about exactly which clinical skills are essential for a new therapist."

"Physical therapy is part of the health-care system, not the whole thing. If all it is to do is make excellent physical therapy, the independent practitioner will not be a door into the health-care system but a dead end . . . . We will need new skills."

This is nothing new. We have only to read the foundational addresses of the men and women who have led this Association, from Mary McMillan, Robert Richardson, to see how persistently we have always known what we mean when we say that we have a career in physical therapy. Choices about the scope of practice seem especially important just now. For example, for several years, we have debated whether physical therapists should practice without physician referral. We have debated whether we can expand our practice to make this possible. Yet we have only begun to come to grips with the real meaning of this practice means. Our rhetoric says the therapist should serve as a "point of entry to the health-care system," but what does that require? To me it demands much more than simply being able to give good physical therapy without a physician to tell us what to do. It calls for much more than referring patients to another therapist when treatment calls for specialized skills we don’t have. Physical therapy is part of the health-care system, not the whole thing. If all we do is provide excellent physical therapy, the independent practitioner will not be a door into the health-care system but a dead end. To serve as a point of entry, we must be able both to care for the specific problem that causes the patient to seek our help and to use our practice as an opportunity to help the patient identify his or her total health-care needs. When a patient comes to us for help with a specific problem such as a painful knee, he also needs to have someone help him find out whether he has high blood pressure, early hearing loss, or an inadequate diet. Without the sort of general screening traditionally provided by the physician, these problems may go unrecognized. If physical therapists are to take over responsibility for this screening, however, we will need new skills . . . skills in taking oral histories, doing physical examinations, and in helping our patients find appropriate help when this screening turns up problems beyond the scope of physical therapy practice. The professional curriculum is already beginning with important things. If we add this, something else must be squeezed out. What should it be?

The choice is made more difficult by pressure from other choices about the scope of practice. For example, we are hearing that therapists should expand their traditional restorative work into the field of prevention?

Should we be using exercise programs for the healthy elderly of our communities? Should we share our expertise with our male colleagues who have done and moved into hospitals and offices to try to prevent accidents and fatalities? Should we be working with public school coaches to set up preschool screening programs? All these things seem worthwhile. I think of the story of the man who was standing on the bank of a river when he heard a shout and saw a young patient care worker being swept downstream. He bravely kicked off his shoes, jumped in, swam out, and pulled the drowning man to shore. Then, just as he succeeded in rescuing the victim, the rescuer heard another cry and saw a second person going under. He repeated his rescue, but again, just as he succeeded in the cry for help was repeated. This happened again and again until finally a fireman ran up and said, "We’ve already sped you up! What are you doing?" This is a story of an exhausted rescuer responding, "These drowning men keep coming past and each time I manage to rescue one, along comes another."

other. I haven’t had a second to run upstream and find out who the hell is pushing them all in!"

Doesn’t this sound familiar? Maybe we should take time out to move upstream and see if we can help to prevent some of the problems we now spend so much time trying to treat. But this is a difficult choice. If we choose to expand our practice in this way, we will still have time to care for the lines of patients with stroke, low back pain, fractures, and arthritis who will still be sent to our departments each day.

As we make these difficult choices about the vision we have of our profession, I believe we should expand our thinking to recognize that our professional practice cannot be conducted in isolation from society and from societal issues that have a profound bearing on the health of mankind. I hope, for example, one year soon our House of Delegates will realize the need to defend a place on the health-care system as the need for a nuclear freeze.

I remember a brief, very naive period in our history, just after the polio vaccine came into use, when some physical therapists asked, "When there aren’t any more polio patients, what will we do?" Our concern now is very different. The scope of physical therapy practice has expanded to the point where it is obvious we can’t do everything that would be worthwhile. Certainly we can’t teach students how to do everything that the point that they enter practice. The need to be selective is often troubling, yet, how good is it to be in a profession of valuable and varied and not one of us can have to know or do it all. This means we must make some difficult choices, but each choice is a privilege, not a burden.

I believe we have made an excellent start in finding ways to use this privilege wisely. We have recognized that entry-level education is only the beginning of professional study and have developed a wealth of clinical orientation and for advanced professional graduate study. We have recognized the need for specialized practice and we are well along with development of systems for training and certifying such experts.

We have also recognized the need for career that reward the experienced therapist for remaining in physical therapy. During much of my own career, I’m sorry to say it seemed to me that the only way to advance was to move away from the clinical practice and into teaching, administration, and research. Now, new positions for clinical specialists and new opportunities for independent practice or group practice expand the rewarding options we have for clinical careers in physical therapy. Of course, we still need good teachers, administrators, and investigators, but I think we now see these careers in a new perspective. We can now recognize them as a step superior to clinical practice but as supportive of it, not as the top of our professional pyramid but at its base.

"We must make some difficult choices, but such choice is a privilege, not a burden."

As we look ahead, the need for making difficult choices seems likely to continue. New issues will arise, new options will present themselves, and new uncertainties will trouble us. When this makes us feel weary, I remind myself of a study conducted some years ago by an experimental psychologist who was interested in testing the theory that all human behavior is driven by efforts to satisfy needs and reduce stimulation. The investigator placed his experimental animals, mice as I remember, in a cage he had equipped with a number of little mouse-sized stools, just large enough to allow the mice to climb up and sit on top. Some of the stools were firmly welded to the floor of the cage, but others were deliberately made uneven and left loosely attached. When the mice climbed up on these stools, they wobbled. No matter where the mice went, they received no special rewards or punishment, but the experimenter worded the cage so he could keep track of where the mice spent their time. The pattern was clear. I think I can guess what it is. The mice spent most of their time up on the wobbly stools.

The professional choices I have been discussing represent our wobbly stools. They keep us afloat and healthy as individual physical therapists and as a professional organization. So I say that the fact that McMillan Lecturers will never lack for new issues to discuss, new alternatives to propose, and new choices to make. I wouldn’t have it any other way.

PHYSICAL THERAPY
Eugene Michels was the nineteenth recipient of the Mary McMillan Lecture Award in 1984. He was graduated from the University of Cincinnati and received his physical therapy certificate from the University of Pennsylvania. He has been the head of the Research/Education Division of the American Physical Therapy Association. Dr. Michels has served as President and Treasurer for APTA and as President of the World Confederation for Physical Therapy (WCPT) as well as on the Journal Committee of APTA. He has received the Dorothy Briggs Scientific Inquiry Award, the Lucy Blair Service Award, and the Golden Pen Award from APTA. He has also received an honorary doctorate from Thomas Jefferson University.
Nineteenth Mary McMillan Lecture

EUGENE MICHELS

This Nineteenth Mary McMillan Lecture marks the 20th anniversary of the first Mary McMillan Lecture by Mildred Elson on July 8, 1964. Miss Elson’s lecture was aptly addressed to the legacy of Mary McMillan. Her lecture was published in the December 1964 issue of PHYSICAL THERAPY. I recommend its reading and the reading of the 15 Mary McMillan Lectures published since that time to each of you.

I am deeply honored to join the 18 distinguished persons who were previously selected to present the Mary McMillan Lecture in tribute to the Association’s first president. I trust that my Mary McMillan Lecture colleagues will not mind too much a sometimes irrelevant critic becoming one of them.

When President Robert Richardson wrote to me a little over one year ago to confirm my selection as the recipient to present this year’s Mary McMillan Lecture, he stated that the title and subject matter of my presentation were left to my discretion but that the content should relate to the contributions I have made to the profession.

Not having been told exactly what the contributions were that merited my selection, and being too close personally to the things I have done to qualify as an unbiased judge of their worth, I took the President at his word and exercised my own discretion.

The title of this lecture is simply the “Nineteenth Mary McMillan Lecture” in tribute to the first president of the American Physical Therapy Association.

Choosing a content area for this lecture was not a simple task. During my 14 years in the clinic, 12 years in academia, 7 years as an Association staff member, 9 years on APTA’s Board of Directors, and 8 years on the Executive Committee of the World Confederation for Physical Therapy, I have had a virtual lifetime of opportunities to do a number of interesting and different things. One might even say that I have had more interesting and different experiences, and more numerous opportunities, than should perhaps fall to any one person.

Among those experiences and opportunities have been occasions to present ideas easily and in writing. Over the years, those presentations have become increasingly analytical and instructional. Given an opportunity to present, I am more likely than not to call upon short on our thinking, or to call attention to useful ideas from intellectual disciplines outside physical therapy, or to do both. In this lecture, I will attempt to do both.

Perhaps more because of advancing age, not increasing wisdom, my interest in arguing one side or another of an issue, or for or against a particular view, is declining. We have an abundance of issues and conflicting views. The number of people willing to argue the issues and views in writing is not yet adequate, but the number is growing. I am encouraged by this growth in written argument not only because it is good in its own right but because it provides grist for the mill of analysis. The soundness of argument on one side or another of an issue, or for or against a particular view, is a topic about which we have much to learn.

When I use the word “argument” here, I mean a course or a line of reasoning, not a quarrel. Under this definition, argument includes the published report of research, the justification of an action to be taken, the insistence that a certain view prevail, and the use of rhetoric. Argument also includes the assertion, heard increasingly, that data are needed before making a decision on just about any issue over which a difference of opinion exists.

Those of you who know me well know my interests and skills, such as they are, in research design and the analysis of data. Those of you who do not know me well may wish to know that I have something to do with the Association’s collection and use of data. I have a deep respect for the importance of data as evidence.

Because of my deep respect for the importance of data, I am compelled to point out that data cannot be used to answer all questions or decide all issues. My lecture will explain and illustrate this point and make other useful points about argument. The overall theme of the lecture is philosophy, ideology, and rhetoric, with consideration of, and consequences for, selected topics and issues pertinent to physical therapy and the Association.

To illustrate the points I make, I must use real examples as grist for my mill of analysis. The critical comments I make are intended to illustrate certain ideas about argument, not to attack personally the individuals whose words I use as grist.

PHILOSOPHY

We tend to use the terms “philosophy” and “philosophical” as if the mere use of the terms makes whatever we are talking or writing about actually philosophical. Some, if not many, of our educational programs have state-
We tend to use the terms 'philosophy' and 'philosophical' as if these terms make whatever we are talking or writing about actual philosophy or actually philosophical."

I do not think that either the editor of the dictionary or John Hospers would be encouraged by overhearing the assertion, often voiced in our field, that so-and-so has a certain "philosophy" or a philosophy of a particular kind. Our use of the expression "philosophy of treatment" usually means some technique accompanied by a scientific or pseudoscientific rationale.

The first several dictionary meanings of the word "philosophy" describe intellectual activity in the form of pursuit, investigation, inquiry, critique, and analysis directed toward wisdom, causes, and essential, fundamental beliefs, and the nature of things. Then come the meanings that deal with what philosophy includes; for example, philosophy includes all the principal methods and practical arts, or philosophy comprises logic, ethics, aesthetics, metaphysics, and epistemology. The latter are referred to as the branches of philosophy. Philosophical analysis, which is concerned with the clarity of concepts and ideas and their expression in language, may be brought to bear on any of the branches of philosophy or on any expression of ideas. Any one or more of the branches of philosophy may be beneficial or critically or constructively useful on any of a variety of areas of human inquiry and knowledge; the result is, for example, the theories of science, philosophy of science, science, philosophy of education, and so on. Of the many branches, disciplines, and subdisciplines into which philosophy may be compartmentalized, only logic and ethics, with the application of philosophical analysis, are of concern in this lecture.

Logic

Logic is concerned with the premises and conclusions in deductive, inductive arguments. In a deductive argument, the conclusion must be true if the premises are true. It is true because all of the information in the conclusion is already contained in the premises. For example, if the premises are true, then every professional recognizes the rights and dignity of all individuals. The conclusion is that every professional recognizes the rights and the dignity of all individuals. It follows that every professional recognizes the rights and dignity of all individuals is true. In an inductive argument, the truth of the conclusion does not necessarily follow from the truth of the premises because the conclusion is probable but not necessarily true. If all professional psychologists recognize the rights and dignity of all individuals, then the conclusion is probable but not necessarily true that all professional psychologists recognize the rights and dignity of all individuals. In such arguments, the conclusion is true if the premises are true that every professional who has ever observed the rights and dignity of all individuals and that all professional psychologists recognize the rights and dignity of all individuals. Inductive argument is used in the pursuit of knowledge through empirical means. The conclusion of an inductive argument may be logically correct or incorrect. If the conclusion is logically correct, it may be weak or strong depending on the degree of support that the premises provide.

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moral value or obligation cannot be based on reference to fact and duty.1128 We question Dr. Gannett, to whom I defer as a competent authority, ... for the fact that a thing exists or does not exist cannot prove either that it is good or that it should exist. Moreover, a subject's ethical obligation, like any other subject belongs to ethics, where the impossibility of deducing what ought to be what is has to be established.1129 Or, as is said to be the moment in view of ethics. ('You can't get an ought out of an is.')"  

Nonnormals Values  
What has been said about judgments of moral value evidently applies as well to judgments of nonnormals value. As example of a nonnormals value might be, for example: Democracy is the best form of government or every member should have a full vote. Note that asserting or denying the nonnormals value that every member should have a full vote is quite unimportant. If I believe that no one has a full vote and I believe no one has a full vote. If I believe that no full vote and others do. It is only true that you can believe that every member should have a full vote, or that certain members should have a full vote and others should not, cannot be derived logically from any statement of fact. To use the vernacular, it's the principles behind the thing, and not the facts, that count in making this judgment.  

To my knowledge, extensive philosophical thinking about nonnormals values and obligations does not exist. The advice of one philosopher on making judgments of nonnormals value is common but good sense: Be informed, impartial, clear-headed, cool, calm, and willing to universality; consider the thing in question wholly on the basis of its intrinsic character, but not consequences or conditions; and offer reasons for the attractiveness of its intrinsic character, not its extrinsic or extratheretical. And yet, the realm of nonnormals values and obligations is precisely the realm in which we find ourselves doing.  

I am going to pose some questions of nonnormals value. Weighting the method of the questions and the nonnormals values, that is, the "should" or "ought" to statements, necessarily follow. In giving careful thought to the nonnormals questions, try to appeal to statements of actual or assumed fact. Try to think of the intrinsic character of the thing and of the principles behind each. Try to think critically about the question, not matters of reason. Try to think of both the nonnormals value, that is, what ought to be, and the nonnormals values, that is, what ought not to be, to be done. Try to think dispassionately about how to justify. How do the answers reflect on intrinsic grounds rather than on extrinsic grounds such as the consequences or the principles? What might it take to do what ought to be done? When you have arrived at your answers, try to clarify the questions behind each judgment of nonnormals value to other areas of nonnormals value, that is, through what it means to be consistent in principle. Above all, develop a habit of critical thinking. A potential implication for existing or future official Asachion policy. The questions that now follow certainly do or can implicate possibilities for political action, and if those implications divert your thinking from calm reasoning to passionate persuasion or action. Should practice in physical therapy be without referral? Or, conversely, should practice in physical therapy be with referral? Is practice without referral good in and of itself? Or, is practice with referral good in and of itself? Ideological values, beliefs, and attitudes may be acquired unconsciously, without people being aware that they are closely tied to an unconscious conviction regarding a doctrine or dogma. Ideological values, beliefs, and attitudes are accepted largely because they express or inhibit feelings, or they encourage or discourage certain types of behavior, the ideological is personal in character and is not found in individuals. The values, beliefs, and attitudes make people reluctant to break rules and standards or that make people suspect of having broken rules and standards, are ideological.  

I do not honestly believe that any among you intends and schemes to be an exploiter of beliefs of ideological values.
The connotations of the expressions “abrupt about-face” and “day-after-day, to eliminate” certain kinds of programs, is to speak, on the author's statements about bureaucratic and certificate programs. No “right-thinking” people would call these programs “consistent failures” or say that they are “incapable of preparing more students for today's work.” Therefore, however, we, as most of whom are graduates of these programs, turn at about 180 degrees and destroy the very things that made us as we are.

Discrimination, in contrast, is the argument shows that it is rhetorical in another way not yet discussed. The argument raises the wrong issue and then addresses that issue as if it were the core of the 1979 decision to raise entrance-level education. The decision was explicitly one of what entrance-level education ought to be from the 1960s on into the next century and not one of preparation for today's entrance-level practice. Arguments for and against that decision should be made and weighted accordingly.

The articles by Watts and Canfield should be read and criticized on the evidence presented. Such as those posed by the two authors and others outside of our profession, that the decision should rest on data demonstrating the necessity or benefit of raising entrance-level education are mistaken. The decision to raise entrance-level education for the physical therapist was a judgment of nonmarket value, a determination of what the education required for the preparation of future generations of entrance-level practitioners. The decision was not and cannot be a conclusion reached only or primarily through appeal to data or application of the scientific method, unless, of course, we were to plan and conduct the grand social experiment on which the hypotheses could be tested by random assignment of students to experimental conditions of different levels of education.

"Comfort, peace of mind, and tranquility do not necessarily follow a nonmarket judgment that past ways are inadequate for the future."

Nor can the decision to raise entrance-level education be viewed strictly as a managerial choice to be reached through application of "decision analysis," as urged by Watts. Neither decision analysis as described by Watts nor decision theory as described by authorities in that field is pertinent to making judgments of nonmarket value. Such judgments are answers to the anterior or prior questions of what should or ought to be. After those questions are answered, decision analysis, decision theory, operations research, and management science may provide a system for making judgments about possible actions and strategies for achieving the judgment that ought to be.

We should not confuse means and ends. The issue of raising entrance-level education just will rest quietly. We should not expect the issue to rest quietly while we are not accustomed to witnessing. The connotations of what we do not have the data to demonstrate that raising entrance-level education is not necessary will be stifled by the collection of data, no matter how pertinent the data may appear to be. Data have their proper use in documenting what is, as in demonstrating that one thing is the effect of another or that one thing is a necessary condition for another. But result that one cannot deduce an ought from an is. The data do not exist and cannot exist that will demonstrate the necessity of reaching any particular social and nonmarket value of what ought to be. Do not be dismayed or paralyzed by the logical trap set by the assumptions of lack of data.

If data cannot demonstrate the necessity of deciding what ought to be, it follows that data also cannot demonstrate the necessity of what ought to be. Fortunately, important decisions about what ought to be and what ought to be done are typically not kept in a state of suspension pending demonstration of their necessity. You will appreciate this point if you think about previous Association decisions on practice without reference to robust demonstration of the same as the accrediting agency in physical therapy is as well as previous personal decisions on entering physical therapy, selecting a career path in physical therapy, by the reading to be single or married, all of which are nonmarket value judgments of which are neither necessary nor unnecessary.

What is unique about raising entrance-level education is that it is a good medium for culturing the seeds of professional ethics. I do not think the responsibility is of comfort. Peace of mind, and tranquility do not commonly follow a nonmarket judgment that past ways are inadequate for the future. We can expect to be>buffed from within and without by all manner of sound and unsound arguments and accusations about this decision.

My intent here is to argue for or against any particular viewpoint but to make the point that arguments given and received should be analyzed critically. The debate of entrance-level education provided convenient grist for my mill of analysis. The arguments I examine are published, that is, they are in print. We debate, we publish, and we do so in the public domain can and should be analyzed critically.

RIGHT, FREEDOM, AND OBLIGATION

Having run the published arguments of others through my mill of critical analysis, I now speak our defense of the right to freedom. To be granted the right of any of us to criticize those arguments publicly. If we believe in the freedom of expression, we must take seriously the right of License, the right of the expressed opinion. The right of those who are in the right to speak freely. It is the obligation to subject the utterance to criticism.

If we believe in the freedom of expression and in the right of dissent, we should never invoke the right of the Association of the Association's members.

"The path of philosophical thinking that runs from ethics through logic to science is as important, and as intellectually interesting and challenging, as is the path of philosophical thinking that runs from logic through science to theory and scientific method. True wisdom have its origin in both paths."

Because the dialectical debate is a procedure for attaining moral and political truth, the right to speak is protected by a willingness to debate. The only shortcoming I see in Lipman's contention is that he does not apply not only to moral and political truth. Criticism and dialectical debate are also necessary conditions for the attainment of truth in science.

Our tendency—and we are not alone in the tendency—to use arguments primarily for the purpose of persuading others or winning a decision can distort our views from the ultimate purpose of the freedom of expression and leaves us poorly equipped, both emotionally and intellectually, to offer and receive criticism.

If we believe in the freedom of expression and in the right of dissent, we must take seriously the right of License, the right of the expressed opinion. We can use against us, as a reason for censoring or suppressing information and viewpoints available to the Association's members.

The path of philosophical thinking that runs from ethics through logic to science is as important, and as intellectually interesting and challenging, as is the path of philosophical thinking that runs from logic through science to theory and scientific method. True wisdom have its origin in both paths.
"I hope to persuade all of you to defend and promote full freedom of expression, including the giving and receiving of criticism. Only through such freedom, responsibly exercised, can our argument of issues and our search for truth rise above the morass of logical fallacies, rhetoric, false conclusions, misinterpretations, and foolish accusations."
Twentieth Mary McMillan Lecture

Great Expectations: A Force in Growth and Change

GENEVA RICHARD JOHNSON

Thank you for being here today to share this event with me. All of the McMillan lecturers who have stood before you in the past would join me in saying that this honor is not mine alone, for whatever I have become, I owe to the many persons who have touched my life and left their indelible mark.

The gracious letter from President Richardson inviting me to be the 20th Mary McMillan Lecturer stated, "The title and subject matter of your presentation is left to your discretion, but the content should relate to the distinguished contributions you have made to the Profession." The word Profession was capitalized! That should have been a warning. Several weeks later, after the glow from the congratulations of my friends had dimmed, the reality of what I had accepted as a thrilling honor surfaced. In 1975, Dr. Helen Hinkop admitted to near paralysis as she rose to speak to you. I admit to that and to praying for a whole year that something like a mild but extended bout of the plague would incapacitate me until early July 1985. But nothing, mild or otherwise, has happened to relieve me of this appointed hour.

Determining a title and content that could reflect "contributions to the Profession" was an intriguing but fearsome assignment. When the deadline for a decision came in February, the competing possibilities gave way to the one that kept elbowing its way to the front. I could no longer resist choosing "Great Expectations: A Force in Growth and Change."

As I reviewed my past in relation to the profession, and in general, the reason that title kept forcing itself into my consciousness was no longer a mystery. This week is a homecoming for me. Here in the state of Louisiana, in the town of Eunice, I was born and christened Genevieve Francis Richard—note, not Françoise, but François. That may have been a distinction that held no significance for my parents because their intent was to name me for my uncle Francis. Still, that tiny difference in spelling gave me three other Francises as powerful models and advocates. All were teachers and preachers; all were seekers of the truth; all were healers; all were gentle, strong, generous, and loving; all were criticized for their beliefs at some time. Although I lay no claim to having the virtues of those great Francis, I do believe my fate was sealed by the baptismal waters and the naming ceremony. Great expectations were implicit.

The earliest expectations I remember were those of my paternal grandmother. When my older brother entered the first grade, she expected me to enter, also. Long before that, she expected us to have quiet times in the heat of the Louisiana summers, so she taught us to play cards and dominoes. Even earlier than I can remember, as I learned to speak, she expected me to speak in both French and English. The French lingered in my head but is limited only to a few useful phrases like, "C'est la plume de ma tante." Thank heavens, the English took a slightly firmer hold.

Of course, the expectations did not end with my grandmother, who died when I was 8 years old. My mother had her own set, which included acceptable academic performance and independence. My brothers and sisters expected strength of character and constancy. Later, the sisters and nephews were satisfied with love and presents at Christmas and on their birthdays, but my friends were less reasonable. They expected letters and visits. Patients expected competence and compassion. Then, students expected knowledge, precept, example, and tolerance for late assignments. Some colleagues expected single-minded devotion to the profession and others never quite knew what to expect. And, then, my husband expected me to be home—sometimes.

Because I am fortunate enough to have met today some of the wonderful people whose expectations have made such a difference in my life, I would like you to meet them—my husband, Bart, who encouraged me, helped me with a multitude of projects, and allowed me to grow into a certified rabble rouser; my sister, Sylvia Mayes, who has been my example of patience and diplomacy; my wonderful niece, Donna Irvin and Camille Berrier, who have been a constant source of joy; my aunt, Glynn Richard, whose husband, my Uncle Francis, was my model of a loving, reasonable person; my other mother, Ruby Kiner Broussard, one of my earliest mentors, who taught me about laughter and its healing power; and my other sister, Charlie Ray Holmes; my college friends, Dr. Jane Ellen Cartier, Marie Broussard Heckman, and Ronnie and Joe Bienvenue; my dearest colleagues in the search for excellence in education and research, Dr. Dorothy Pinkston and Dr. Don Lehnkalt; the graduates of Case Western Reserve University who hold a special place in my heart and who are responsible for a large measure for the honor I am receiving today; the colleagues from The Institute for Rehabilitation and Research who are my partners in an exciting adventure in search of excellence in patient care, clinical research, clinical specialization, administration, staff develop—
"What we have accomplished since the inception of the American Physical Therapy Association in 1921 is an incredible testimony to our founders. I am almost unfaithful to physical therapists, for our achievement is so short a time hence as to be phenomenal.

One contribution I have made toward the advancement of physical therapy is to express physical therapists to be responsible for their actions, to care about themselves and each other, to value their contributions to patient care, and to create their own futures. I have been able to visualize limitless possibilities for the profession and to share that vision with others.

THE PARADE OF THE PAST

Because we cannot change the past, our hope for the achievement of our goals lies in the future. We can only hope, as you believe I do that the past is prologue. We can look forward to drastic change in physical therapy over the next 20 years.

When I began to visualize what we will look like in the year 2005, I invited the past to parade in review. The theme of our parade has changed over the years, depending on who had charge of the entries, but our parade has always made us feel that the best is yet to come. Some of the entries have been beautiful; some have been marvels of ingenuity; some have been humorous; some have been poignant; and some should never have been seen the light of day.

The unusual nature of the entries of the time between 1921 and 1954 suggest that the theme was "The Uncharted Waters." Events unfolded slowly at first, recognized the names and faces of some of the people whose contributions in the first two decades of our history laid a firm foundation for our present.

The pace of the parade was steady but not hurried, until the years of World War II. Notable entries, ranging from superb to sad, were given to the people with the mighty expectations of MaryMcClean and the 20 other pioneers who founded the Association in 1921. Their purpose was "...to establish and maintain a professional and scientific standard for those engaged in the profession of physical therapy; to increase efficiency among its members by encouraging them in advanced study; to disseminate information by the distribution of medical literature and articles of professional interest; to make available efficiently trained women to the medical profession; and to sustain social fellowship and intercourse among grounds of mutual interest."

The statement was met with ingenuity, determination, and qualified male physical therapists to join the parade.

In 1927, a scant six years later, an entry shows us a newly adopted constitution and bylaws. The history of the future. Expectations of members were stated explicitly in the purpose:

a) To form a national organization which will establish and maintain a professional and scientific standard for those engaged in physical therapy.

b) To promote the science of physical therapy by cooperating in the establishment of standardized schools of physical therapy and encouraging scientific research in the profession.

c) To cooperate with other, or under the direction of, medical profession and to provide a central registry which will make it possible for the Association to give information efficiently trained assistants in physical therapy.

Members of the founding organization proceeded to establish educational programs to prepare physical therapists; develop a mechanism for approving existing educational programs and the new ones that opened; develop a national publication; organize local units as components of the Association; increase the membership through a sound membership recruitment program; and hold national meetings of the Association, including scientific sessions.

Meanwhile, individual members were engaged in the development of a variety of settings throughout the country: teaching facilities, public health agencies, industrial clinics, research hospitals, and physical therapy work in schools. Those early physical therapists clearly expected to be accepted as professionals who had prepared to contribute to health care in their communities.

The next parade entries of note had long-term goal-setting power. The Association's responsibilities so willingly and enthusiastically undertaken by our early members, the activities related to approving educational programs proved too costly and time-consuming. The young Association found itself with limited funds, no personnel, and little power to enforce any of its obligations in the approval process.

To allow programs to develop without meeting the minimal standards established by the Association was an unthinkable alternative. Members chose, instead, to support the American Physical Therapy Association in assistance in solving these problems. The Council on Medical Education and Hospitals of the American Medical Association assumed control of the approval of our educational programs.

The decision to request assistance from the American Medical Association stemmed from the expectation that educational programs in physical therapy must meet national standards of the profession at that time, act in accord with that expectation, and, therefore, a wrong decision made for the right reasons, caused us pain, humiliation, and endless hours of fruitless negotiation before we regained control of accreditation.

The one unfortunate entry in our parade occurred somewhere between 1921 and 1954, when the American Physical Therapy Association was coerced by circumstances to accept physical therapists from outside the Association on the basis of general qualifications.

Article II, Functions, Section 1 of the Bylaws was amended to read as follows:

The functions of the American Physical Therapy Association in performance of the objects as set forth in the Articles of Incorporation shall be the followings:

(a) To define functions of physical therapists according to acceptable standards of physical therapy service.

(b) To promote physical therapy by developing and preparing sound standards of physical therapy education and by cooperating in planning the development of adequate facilities, including clinical training and preceptorship, for the education of physical therapists and for the general good of administration, organization, and administration of physical therapy.

(c) To promote legislation and to speak for the physical therapy profession in regard to matters affecting the profession and the purposes of the Association.

(d) To promote and protect the economic and general welfare of physical therapists.

(e) To promote communication and other services within the purview of the American Physical Therapy Association to individuals, agencies, and organizations.

(f) To represent physical therapists and allied professional, governmental, and industrial groups with the American public in matters of mutual interest to the object and work of the American Physical Therapy Association.

"The 1954 amendments are historic because in them we renewed our original focus on the development of physical therapy as a distinct profession apart from medicine."

"Changes in education are the key to full professional status."

A NEW LOOK

The parade took on a new look in 1954 when the House of Delegates adopted significant amendments to the Certificate of Incorporation and the Bylaws of the Association. The Certificate of Incorporation, Section 2, was amended to read as follows:

The object of this organization shall be to further the development and improvement of educational programs for physical therapy education through the development and coordinated action of physical therapists, allied professional groups, organizations, agencies, and schools to the end that the physical therapy needs of the people shall be met.

The next entry was the Bylaws amended to read as follows:

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"The 1954 amendments are historic because in them we renewed our original focus on the development of physical therapy as a distinct profession apart from medicine."

"Our expectations are guidelines that can lead us beyond goals that may be too modest."

"For critical insight and helpful advice, we can count on our members."

"PHYSICAL THERAPY"
I expect us to be clear about who we are, if the physical therapist is to be recognized as a professional.

Our professional image and behavior must be above question. I expect us to remove from our minds the notion that we are a part of medicine or allied health.

greater expectations for 2005

The parade continues and in 1983 the pace is incredibly swift. A vision of

the action in the next 20 years is bound to include alternatives because we are free to create a variety of futures from which to choose. My own expectations for us are like the stars, too numerous to count, but I will present a small selection.

The theme of Love parade that begins to flow in the relationship of Bernard's illness, or "If You Never Have a Dream, Hows Gonna Have a Dream Come True?"

My first float in the parade for 1986 to 2005 is titled "Physical Therapy—A Profession.

The two core characteristics that are necessary for the classification of an occupation as a profession are "a prolonged specialized training in a body of knowledge," and "a collective or service orientation."

No one can claim to have the "right" or "false" orientation or that we have banded together to further that service. What is possible is that the work of public acceptance as a profession is the lack of a "prolonged, specialized training in a body of abstract knowledge."

Changes in education are the key to full professional status. Therefore, I expect that preparation for practice must include opportunities for students to develop the skills, knowledge and competencies that are necessary for professional practice. I expect us to develop the professional doctorate in physical therapy with the potential for terminal level study within five years.

I expect at least one half of our members to be prepared at the doctoral level by the year 2005. I expect the development of 8 to 10 strong doctoral programs to be ready for candidates. I expect us to develop the professional doctorate in physical therapy for education for several institutions. In 2005 I predicted that we would have 90 programs by 1990. My prediction was off by several years and in 1985 we have 100 programs. Our expectations are guidelines that can be changed as we go beyond goals that may be too modest.

A program that cannot or that refuse to meet the December 31, 1990, deadline will be an Associate program and the Board reserves the right to board them into a new category.

I expect programs that cannot or will not be a member of the Association to be identified in a future issue of the journal. I suggest abandoning the term "associate" or "affiliated" because of its meaning.

In a real sense, maintaining such a program is a disservice to faculty, students, and the public. Faculty who remain in that kind of setting will not permit students of physical therapy to be accredited.

I hope that soon we will recognize that we are exploited in many areas and refuse to be a part of us.

Our professional image and behavior must be above question. I expect to remove from the minds the notion that we are a part of medicine that is to the public's health. If we are the profession we claim to be, then we cannot be a part of another.

As for allied health, I am waiting, and have been waiting since the early sixties, for a definition of that term.

I cannot be certain what our tomorrow will be like. One thing I am certain about is that your tomorrow and mine will be what we choose to make it.

Those who are in Sports Medicine must be made to see the value of physical therapists practicing physical therapy or if they are illegal practitioners of medicine, they must leave us.

We must see the possibility of establishing consortium, in geographical areas, and we must develop the necessary agreements of that kind that will allow us to share some of our most able practitioners with the other professions.

The basic tenets of the profession must be made to include in their names, as do the physicians.

I cannot walk on both sides of the street at the same time.

Other language I expect us to discard. I am writing about being recognized as a profession, includes ancillary, which literally means subordinate, inefficient, inadequate. I am writing about medicine and education, and Chief instead of Director, as the designation of the physical therapist as manager of a treatment unit. I expect us to eliminate all written and spoken jargon and the use of initials, FT, when we speak or write about physical therapy or physical therapists. We cannot afford to lose language in describing ourselves and what we do.

In the near future, I expect all physical therapists to be practicing from a community.

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REFERENCES


The Twenty-First Mary McMillan Lecture
presented
June 9, 1986
Chicago, Illinois
by
Dorothy Pinkston, Ph.D., PT, FAAPTA

Dorothy Pinkston was the twenty-first recipient of the Mary McMillan Lecture Award in 1986. She was graduated from Georgia State College with a Bachelor of Science degree in physical therapy and received her physical therapy certificate from Northwestern University and her doctorate from Case Western Reserve University. Dr. Pinkston has received the Lucy Blair Service Award from the American Physical Therapy Association. She has served the Association on the Board of Directors, the Editorial Board of Physical Therapy, and the Nominating Committee, as well as on numerous task forces and committees.
Twenty-First Mary McMillan Lecture

DOROTHY PINKSTON

Although I must stand somewhat alone at this moment, I accept this honor knowing that it is shared with so many individuals—individuals who have led, who have stood by and offered support and encouragement, and those who gave a push now and then; individual members of my family; and other individuals who are the most loyal of friends. Recognizing both the singularity and the source of this particular honor, I present some bouquet to Brown, one of my brothers, who offers the strength and comfort of brotherly support by his presence here on this occasion and who represents others in our family; to that very special group of alumni of the Graduate Physical Therapy Curriculum, Case Western Reserve University, and the faculty members, classroom and clinical, with whom I worked at that institution; to fellow members of the Army Medical Specialist Corps; to members of the American Physical Therapy Association and staff of the Association’s headquarters with whom I have served; and to the alumni, students, faculty, and staff of the Division of Physical Therapy, School of Community and Allied Health, The University of Alabama at Birmingham.

The Twenty-First Mary McMillan Lecture is a look toward the twenty-first century for certain elements in and of the APTA and for physical therapy education. Throughout this look toward the twenty-first century, something of a historical perspective is offered as reminiscences for reconsideration for some and to serve, perhaps, as initiation or edification for others. Key among the topics related to the Association is the cost of growth. As part of this theme, questions are posed about the price, tangible and intangible, that the members of the 1980s and 1990s will be willing to pay for an association that is a viable organization in and of the twenty-first century. Cost is being used not only in the sense of the expenditure of dollars but also in the sense of the expenditure of time and effort. In addition, cost is being used in some instances to refer to trade-offs and some things that we have given up along the way. “Growth” is being used in the sense of growing—of having reached the age of 65 years—and growth in the sense of increases. Selected aspects of physical therapy education are examined with both anticipation and apprehension. Certain features are discussed with attention to relationships to the Association and with comments and questions about the price that has been paid and the costs that might be encountered on the road toward the twenty-first century.

PRESERVING OUR LEGACY

Each fall, a portion of my teaching responsibilities provides a very special time for sharing with one of my valued and respected teaching associates certain memories that each of us has about our previous years in physical therapy. This sharing between colleagues is in preparation for sharing some of these memories with students—physical therapist assistant and physical therapy students who are beginning their respective programs of study. Certain materials have become a must for inclusion in these times for sharing. Among these materials is the closing paragraph from the “First Mary McMillan Lecture: The Legacy of Mary McMillan” presented by Mildred Ehsen in 1964. In that closing paragraph, she quoted John F. Kennedy:

“It is our task in our time and in our generation to hand down undiminished to those who come after us what was handed down to us by those who went before. . . . To do this requires constant attention and vigilance, sustained vigor and imagination.”

—Mildred O. Ehsen

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This article is based on the Twenty-First Mary McMillan Lecture presented at the Sixty-Second Annual Convention of the American Physical Therapy Association, Chicago, IL June 8-12, 1996.

Volume 66 / Number 11, November 1996

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And our first Mary McMillan lecturer followed with this challenge:

What is the true nature of the problems associated with physical therapy? What are the essential factors contributing to the development of these problems? How can we overcome them? What are the potential solutions? These are the questions that we, as physical therapists, need to address.

The McMillan Lecturers

Preparation for Participating

Nurturing and growing at times seem to be at opposite poles. Along with growth has come expenditure tremendous amounts of effort toward grasping the wheels of efficiency for the operations of the organization, and rightfully so must we be concerned with efficiency of operation. Each one of us is in the position to think that our membership dues are being used as effectively as possible. Amidst the efficiency and the face of growth, however, are we giving the required

Preparation for Participating

The Journal of the American Physical Therapy Association,
Perhaps the time has come when the sessions of the House must be recorded on videotape. Equitable arrangements might be worked out between the lobbyists and educational institutions to share the expense of purchasing or renting and, of course, sharing the tapes. Apart from the instructional potential lies the potential for groups of educational institutions to share the expense of purchasing or renting and, of course, sharing the tapes.

The 20 years between 1965 and 1985 include the peak retirement years for two prominent groups of members of the House. Others indicate that at least a portion of the founding members; the other group is that of those persons who entered the field of physical therapy and the APTA during or immediately after World War II. This is a part of the growing, the maturing, and certainly these circumstances are not unique to the APTA. The cost of preserving our heritage increases in light of these particular "waves of retirement." Years. Retirement often brings with it diminished participation in Association activities. When such is the case, we are without not only the spirit that made members but also the spirit of individuals who were, in study and in practice, to the founding members. We must seize every opportunity to capture the spirit and pass it on to the new members at the bottom rung of the ladder of the profession with diligence, with the hope that in so doing we might rejuvenate and fuel the growing. A 10-year period is a short time in some instances, the opportunity must be made, and to make opportunities offers care.

The price might be related to a number of activities, or programs, of the Association. Among these are the Annual Conference of the Association and plans that would make it more appealing to return to and participate in at least a portion of the Annual Conference. Another is in the area of the Annual Almanac and the methods used for recording certain events. The technology of today offers multiple choices of media along with the printed page. Videotaping key portions of the Annual Conference could provide a wealth of stimulating resources materials to be used in educational programs and, at the same time, preserve the spirit of the recorded event. We have let certain opportunities pass us by, but this need not continue if we are willing to pay the price.

The price that we must pay to "hand down undiminished to those who come after us what was handed down to us by those who went before" becomes higher as we move further back in the potential for the torch to be passed by those who had a hand in lighting and in kindling the flame.

Clearly, the price that we must pay becomes higher as we move further back in the potential for the torch to be passed by those who had a hand in lighting and in kindling the flame.

ENDEAVORS FOR PHYSICAL THERAPY EDUCATION

In moving to the second major theme, a look toward the twenty-first century for physical therapy education, I can set aside neither the Association nor the cost of expression. Expounded priorities for physical therapy education for 45 years have been relative either directly or indirectly, to the preparation of individuals to enter the field of physical therapy and, for the most part, the focus has been on the physical therapist clinician. In more recent years, preparation of the physical therapist assistant has shared attention in those expressed priorities.

Before I comment further on physical therapy education, I must make somewhat of an aside. Any ripples that are created, or waves that are created, by the full tide of the ocean is indeed that I am treading the rocky waters and with clear acknowledgment that some of my own deeds, acts of omission or commission, contributed to the state of the refection pool of physical therapy education.

When I thought about moving toward and into the twenty-first century for physical therapy education, focusing on the remaining part of the decade of the eighties and then the decade of the nineties and beyond, certain applicable and frequently quoted lines repeatedly surfaced above these next 10 to 15 years might be described someday. "It was the best of times, it was the worst of times." I offer the following sampling of characteristics that exemplify the best of times in education for the physical therapist:

- An applicant pool that includes candidates who are academically qualified through undergraduate study, eager in their pursuit of knowledge, and have seen in physical therapy, and in many instances seasoned by years in a field other than physical therapy.
- Young and eager academics who demonstrate remarkable potential for greatness in physical therapy education.
- The technology to support creativity in instruction and to offer rewards and challenges in learning.
- A marketplace that offers graduates employment with salary and with choices in abundance.
- And what of some of the characteristics that exemplify the worst of times? Mainly, two:
  - Continued and enduring efforts toward compiling and reviewing an exhaustive listing of the supportive tools and enabling procedures that are used in the practice of physical therapy.
  - Educational programs for the physical therapist located in institutional environments where the quest for party for all often overshadows the quest for quality for any.

I mention only two characteristics that exemplify the worst of times, because there have on physical therapy education is tension. The cost that the future holds seems bound intrinsically to the two characteristics that exemplify the worst of times. Those who are willing to pay to modify those characteristics, it seems, will determine the longevity of none of those characteristics that in part exemplify the best of times.

Throughout the 65 years of our history, the job of education and the job of education is to prepare students for professional roles, which is to guide patients toward defining two words that have very clear meaning—physical therapy. Perhaps the growth of the 65 years has brought us to that point such as that term "physical therapist" now denotes one profession.

Repeatedly, the plea has been made that we focus our attention on human movement or movement dysfunction, or both, or on the fundamentals of exercise used for therapeutic purposes. I join the list of others who have made the plea previously. Investigations focusing on human movement has changed due to disease and trauma, and on how human movement or movement can be affected by and affected through therapeutic intervention, are being pursued.

Studies are under way also to determine how physical therapists can participate effectively in changing health care delivery. Physical therapists are among those participating in research in each of these areas. Perhaps the outcomes of these activities will be even greater than those could be hoped for, and we will look to our candidates of physical therapists of known today can participate effectively in the intervention but also a meaningful and appropriate title for that practitioner who, indeed, is focusing on movement dysfunction. The cost to modify the second of the characteristics mentioned as exemplifying the worst of times can be met best when financial resources are bolstered by individual vision, commitment and dedication, persistence, and unending patience. Circumstances unique to each institution are known most clearly by the faculty of the respective program. Each set of circumstances must be examined and particular attention given to the probabilities of sustained support for the continued development of physical therapy education. A variety of questions must be asked when analyzing the individual sets of circumstances, and among the questions are some related to characteristics that exemplify the best of times. Can the applicant pool be tapped effectively? Can persons who have potential for greatness in physical therapy education be attracted to faculty positions and retained? What level of quality might be achieved in the curriculum? What will be the reputation that the graduates carry with them when seeking employment?

"Can the applicant pool be tapped effectively? Can persons who have potential for greatness in physical therapy education be attracted to faculty positions and retained? What level of quality might be achieved in the curriculum? What will be the reputation that the graduates carry with them when seeking employment?"
"Extravagance and meagerness? Yes, and the loss of momentum was costly, particularly in light of the needs today."

The years of the seventies did bring diminished external funding for graduate education, several matters other than the social sciences, but the implication that the student teachers had come into sharp focus for physical therapy education—namely, the accreditation process and the level of the professions—had not disappeared; the shortage was becoming greater, but the momentum had been lost. Extravagance and meagerness? Yes, and the loss of momentum was costly, particularly in light of the needs today.

Curriculum planning and faculty development. Another area of extravagance and meagerness that warrants attention is that of curriculum planning and the continued development of classroom and clinical teachers. Similar cost extravagance is found in ventures related to the endeavors for education. Beginning in 1955 and extending through 1967 "annual, five-day institutions through which participants—physical therapist faculty members of all accredited and developing programs of physical therapy education—might strengthen their skills and knowledge were sponsored jointly by the APTA and the VRA. In the foreword to the Proceedings of the 1967 APTA-VRA Institute, Sarah S. Rodgers, Consultant, Division of Education, APTA, reported that 671 teachers had attended the five institutes offered in the time period from 1963 to 1967. The total ratio of faculty to student was mass ratio of 1:2.25. Reportedly, a total of 2,125 academic and clinical instructors participated in the 13 institutions conducted between 1955 and 1967. The Section for Education kept the momentum going, and assuming or co-sponsoring a number of regional and national institutes focused on curriculum planning and evaluation and on institutional methods. Once again, the momentum rolled vigorously to a standstill, and the topics rested quietly and seemingly unnoticed until the fall of 1965, when over 250 educators concerned with clinical education met in Rock Eagle, Georgia to consider pressing issues and potential strategies in the clinical education segments of physical therapy education."

Physical therapy educators in a variety of roles from all parts of the country participated in the conference. I say with sincerity, and some sadness, that I have not witnessed the likes of such camaraderie since the days of the final APTA-VRA Institute in 1967 at Innsbruck College, Fairview University, located in Wayzata, Nebraska. Surely the enthusiasm and interest can be felt, but the extravagance of such a necessity seems unthinkable. Surely the enthusiasm and interest felt and held by the participants in the APTA-VRA Institute can be kindled for those who since have joined the faculty ranks, classroom and clinical. Perhaps, then, the expenditures will be toward sustaining rather than recruiting.

Organized Focus and Strength

The need for teachers, both classroom and clinical, is inevitable. The extent to which a shortage will continue to exist into the twenty-first century clearly will be related to outcomes of several programs of the APTA. An additional factor that will influence the price is the extent to which we are willing to pay to have an organized entity, with strength in numbers and in influence. A staff that exists solely in the interest of the quality of physical therapy education. I am not proposing that such an organization must be separate from the Association. On the contrary. To be totally separate would be a step toward immediate diminution of potential and interest areas. I am proposing that the need, as we move toward the twenty-first century in a structure quite different from the section structure that exists currently. The education of the physical therapist assistant for the twenty-first century is a movement that deserves more than a voice without a vote. Physical therapists and others

"We can best serve physical therapy by demanding clarity and accuracy in the spoken words and the printed words when addressing endeavors toward the education of physical therapists and physical therapist assistants for the twenty-first century."

Education is not simply a special area of physical therapy. Education provides the foundation for those special areas of interest-organ and client service.

Routinely, at the Annual Meeting, at the Combined Sections Meetings, and throughout the months between, the organizational structure of education is diminished by the very thing that strengthens physical therapy education—interaction and participation of educational administrators, classroom faculty, and clinical faculty in other sections. To choose membership in a section that focuses on an area of practice that corresponds to an area of teaching rather than electing to remain in a section for Education is materially understandable and defensible.

There is no lack of the need to ensure the viability of physical therapy education. Interest is demonstrated regularly by attendance and participation in the open forums at the Annual Conference and at Combined Sections Meeting, and the level of interest was emphasized by the individually financed registration for the special interest group entitled "Leadership for Change in Physical Therapy Clinical Education." Perhaps an element of cost that faces us is a conference that focuses on education, held on a biannual basis, if not annually.

Clarity and Accuracy

Another part of the cost in growth in physical therapy education is similar to costs we must face for the Association as a whole as we renew our efforts to preserve the history of change. Every aspect of the history of our Association deserves, in a careful attention and dedicated efforts toward leaving the records clear and unclouded toward insuring as such a goal can be achieved. We can best serve the Association in clarity and accuracy in the spoken words and the printed words when addressing endeavors toward the education of physical therapists and physical therapist assistants for the twenty-first century. The following quotation from a very recent publication of the Association properly is germane. "The overall expenditure would be the support of a staff position that is dedicated to achieving and maintaining accuracy in the numerous documents of the Association..."

HISTORICAL PERSPECTIVE

The revised Code of Ethics, the publication, and academic preparation of physical therapists have undergone many changes during the last 20 years. The emerging need for them changes more than 10 years ago, the APTA House of Delegates adopted the policy that education for the physical therapist assistant be to that which results in the award of a postbaccalaureate degree. This statement could be construed as a matter of the emergence of these changes being sensed more than 10 years ago, but then one is left not knowing the magnitude of change. The statement implies that the House of Delegates action was taken before 1976—perhaps a dream for some, but not an accurate historical perspective on a critical point in the history of education for the physical therapist. At a time in our history when the Association, academic preparation for the physical therapist have gained the attention of persons in institutions and agencies of higher education, physical therapists and educators are of utmost importance in the selection of an institution.

The action taken in 1979 and 1980 by the House of Delegates related to the education specific to the physical therapist has become victim to "acronymia." We are of today's world and attempts to shorten a long and cumbersome phrase are not surprising and even in some respects are quite desirable. Particular caution must be exercised when developing the system of degree designations, the resulting language will not distort the original language.

"There is a clear and present danger that, while legitimate routes are being used, the general or liberal education of the physical therapists of tomorrow is being short-circuited."

The acronym, BPTI, being used for the term postbaccalaureate enters as an example. Defining the acronymic term is a part of the present effort, but also furthers the cloudiness with which the action is thought about and dealt. One of the key elements has been omitted in the acronym and, small though the word "degree" might be, any time that we omit this word, particularly in formal writing and spoken communications, the point has been lost. In such circumstances, the argument that is being put forth or the explanation that is being given simply does not have meaning. Expediency in language does not serve us well when dealing with something so important as the position we hold on education of the physical therapist.

Policies into Practice

As we move toward the twenty-first century in the enterprise of preparing individuals to enter the practice of physical therapy, monetary costs could be well overshadowed by expenditure of individual and collective efforts to clarify our intentions, expectations, and aspirations. Two topics in particular must be addressed: 1) the use of the terms "graduate study" and "graduate program" and 2) how we operationalize the beliefs about the general or liberal education of the physical therapists that have been described in our document, RC 14-79. 25. General study or program versus professional study or program. In both spoken and written communications, graduate program has been used synonymously with entry-level program, and graduate degree has been used synonymously with postbaccalaureate degree when describing education for the physical therapist. Graduate degree and postbaccalaureate degree hold true as synonymous terms for certain programs today, and this an such has led to confusion. As pointed out by MacKinnon in an article in a published book two years ago, several factors must be considered in making a decision about the degree designation for the first professional degree in physical therapy. Perhaps the overriding factor in too many instances has been, and will likely continue to be, the degree-granting status of the respective university or college, or where the program is located. Degree-granting schools or colleges of physical therapy do not abound in the United States, and for the most part the schools or colleges where entry-level programs for the physical therapist are housed administratively do not hold the authority to grant degrees. In this situation, a proposal for the physical
therapy program to terminate with a postbaccalaureate degree is flagged immediately as a matter for the graduate studies unit within the university. Proposers of the proposal then are faced with justifying semester or quarter credit-hour loads that far exceed the maximum load for graduate study and lead to total earned credit hours in excess of what is required for any other master's degree program in the system. We are dealing with a professional program and when we come to grips with that fact, we will find, I believe, that we are trying to sell an entirely different product. Perhaps as we work through, in our thinking and in our behavior, some of the real and distinct differences between graduate study and a professional program, we will arrive at widespread use of a first professional degree designation that identifies the field of work that the holder of the degree is qualified to enter.

Graduate study does have certain very specific connotations in academia and, once we impose those connotations, and the accompanying rules and regulations, on the entry-level curriculum for the physical therapist, we have created an environment that is misleading for all who are involved—faculty, applicants, students, administrators, and both the professional and lay public. Nowhere in the resolution adopted by the House of Delegates of the APTA in 1979 and amended in 1980—the policy of this Association on entry-level education for the physical therapist—are the terms graduate study or graduate degree to be found. The word graduate did make its way into subsequent House of Delegates action in 1983, when action was taken to affirm, or reaffirm, the position, but the facts of the original action are unaltered.

General or Liberal education of the physical therapist. A portion of the foundations for our efforts in education of the physical therapist, clearly expressed in the following WHEREAS components of the 1979 Resolutions adopted by the House, seems to be fading:

WHEREAS, The rapidly extending boundaries of physical therapy practice and the exponential expansion of relevant knowledge evoke demands to expand the content of physical therapy education and to broaden the general or liberal education of the physical therapist.

WHEREAS, Baccalaureate entry level education of the physical therapist imposes constraints on the further development of professional education and on broadening the general or liberal education of the physical therapist...

In a number of institutions across the country, physical therapy faculties are in the final stages of planning for transition of respective entry-level programs for the physical therapist to programs that lead to postbaccalaureate degrees. At least 40% of those planning for transition have reported that less than four years of study will be required for admission to the professional program. In some instances, the requirement is for three years; in others, two years. I will not debate the matter of institutional prerogative regarding requirements for a degree, but I must question the extent to which we have expressed clearly our intentions and the extent to which the policy adopted by the House of Delegates is being heeded. Does the WHEREAS component of RC 14-79 serve to state the rationale for the RESOLVED component or are those statements merely embellishments? There are a number of legitimate ways for obtaining a postbaccalaureate degree, but there is a clear and present danger that, while legitimate routes are being used, the general or liberal education of the physical therapists of tomorrow is being short-circuited. We cannot ask that the physical therapists of the future pay such a price, and we should not ask that the clients of the twenty-first century be served by physical therapists who have less than a solid undergraduate education.

CONCLUSION

The areas of growth and the potential cost—tangible and intangible—for exceed those mentioned ever so briefly, and I have only scratched the surface of the topics that must be addressed in physical therapy education—topics that must be addressed for the sake of two very important client groups: students and patients. Nevertheless, my purposes will have been served in large part if the substance of this paper stimulates review of some of the materials, or rethinking of some of the events, that have been mentioned and if subsequent actions reflect something of the tenor of this paper.

In closing the Twenty-First Mary McMillan Lecture, in tribute to Mary McMillan and in recognition of persons we have presented the Mary McMillan Lecture in previous years, I must reiterate statements made earlier. The Association is 65 years old and the price that we must pay "to hand down undiminished to those who come after us what was handed down to us by those who went before" becomes higher as we move farther from the potential for the torch to be passed by those who had a hand in the lighting and in the kindling of the flame. As individual members and as an association, the question of willingness to pay the price must be answered.

REFERENCES


Charles M. Magistro was the twenty-second recipient of the Mary McMillan Lecture Award in 1987. He was graduated from Columbia University with a Bachelor of Science degree in physical therapy. He has received the Lucy Blair Service Award and the Henry O. Kendall and Florence P. Kendall Award from the American Physical Therapy Association, as well as the Distinguished Service Award from the Foundation for Physical Therapy, Inc. Mr. Magistro has served on the Nominating and Finance Committees of APTA. He has been elected to the Board of Directors and as President of the Association.
I am deeply honored to have been selected to deliver the Twenty-Second Mary McMillan Lecture. Since entering the profession of physical therapy, I have heard and read a great deal about Mary McMillan and her vision for our profession and the American Physical Therapy Association. It has been my good fortune to have known all but one of the previous Mary McMillan lecturers. I recognize and acknowledge the numerous contributions made to our profession by these 21 distinguished persons. To those Mary McMillan lecturers present today, I wish to say that it is the privilege of your select company is in itself a unique honor.

I would be remiss if I did not take this opportunity to recognize specifically the members of my family who are present today and who have enabled me to make a total commitment to my profession for so many years. My missing special family events such as birthdays, piano recitals, little league games, graduations, and anniversaries were not unusual occurrences in our household. Somehow my family tolerated and understood my zeal and dedication to my chosen work. Perhaps today they will gain even greater appreciation of why we all sacrificed so much.

There are three other people whom I would like to recognize today. I am certain that all three would have been delighted to share this memorable occasion with me.

Mr. Magistro is Director of Physical Therapy, Pomona Valley Community Hospital, 1798 N. Garey Ave., Pomona, CA 91767 (USA). This article is based on the Twenty-Second Mary McMillan Lecture presented at the Thirty-Third Annual Conference of the American Physical Therapy Association, San Antonio, TX, June 26-July 2, 1987.
We physical therapists never must permit our profession to be jeopardized by failing to provide those services that justify our existence.

While on this subject, it seems appropriate to interject an underlying concern that I have held for many years. Often, it seems that our friends and the public are too apt to look upon physical therapy as a form of health care and not as a profession. They seem to think that it is the responsibility of the hospital administration to provide physical therapy services or that it is the responsibility of the state legislature to pass legislation requiring service in all hospitals. This is a misconception that we must correct if we are to maintain our professional status.

In conclusion, I would like to emphasize the importance of physical therapy to the patient. Physical therapy is a vital part of the health care delivery system and should be provided to all patients who need it. As physical therapists, we must continue to work towards improving the quality of physical therapy services and ensuring that they are accessible to all patients who need them.
Let us not quibble about who holds what position or who accomplishes what; rather, let us be assured that the 'who' is the best possible person and that the 'what' gets accomplished.

The growth of physical therapy into the profession it is today is truly an outstanding accomplishment. It is my sincere hope that our future t-w-th and development will be equally remarkable. I do, however, fear that great challenges and formidable tasks lie ahead of us. They must be recognized and confronted head-on if the visions we share for our profession are to be realized. Ralph Waldo Emerson once said, "People only see what they are prepared to see." I would hope that we will be able to see the impediments to the continued growth and success of physical therapy and then address these issues in a practical and expediency manner.

I regret that these challenges are in the matter of education. The educational preparation of physical therapists has been an ongoing concern to our Association since it was founded. I believe that the very bedrock of any profession rests squarely on the educational preparation of its constituents. The rapidly changing and emerging role of physical therapy has complicated our ability to respond to the numerous demands facing the education and training of physical therapists. The sources of our concern have been with such basics as the proper settings for our educational programs, the adequacy of these programs to meet entry-level requirements, and our authority to accredit these educational programs. Conflicts have developed over what we believe to be essential self-determination and what others outside our profession regard as self-serving interests. Settlement of these differences will fall ultimately to the consumers and the payers of physical therapy services.

Some of our professional colleagues believe that the problem confronting physical therapy education today are the result of the Association's efforts to raise entry-level preparation to the postbaccalaureate-degree level. I do not share this belief, although I am certain this movement has intensified an already serious problem. It is unfortunate that physical therapy education could not have grown at an earlier stage as was provided to medical education at the turn of the century by the Flexner Report. That report, a monumental work of educational preparation and prepared by Abraham Flexner, was an educator and not a physician, presented a critical analysis of medical education in this country and identified deficiencies in the initial, standardized, and otherwise reform medical education at a time when education was struggling to find its proper role. Interestingly enough, many of the issues and problems are being discussed today by our profession as we plan for the education of physical therapists. Two of the most frequently discussed subjects are the importance of a liberal arts education before entering a professional curriculum and the ability of teachers in scientific schools to perform research.

In our profession we have suggested that the 1968 Worthington study of basic physical therapy education could change and should have sparked an educational revolution in physical therapy. Unfortunately, the study at that time did not have a significant impact. The critical factor to alleviate the shortage of qualified teachers is the immediate and long-term need is funding and that a top priority for our Association should be lobbying for increased funds. In one project developed by the Task Force, $540,000 would be required to produce 140 individuals with doctoral degrees. However, the budget was not accurate and we can have reasonable assurances that the projections can be met. One has to answer the question: How is this going to happen? A strong suspect is that our leadership, although supportive of the concept, was stunned by the $3.8 million that the program would cost over its lifetime.

As I see it, the extent to which physical therapy will thrive or survive in the future will be related directly to the issues of faculty development.

As I was searching for other sources of funding that might have financed this project, I noted that the Association recently has committed in excess of half a million dollars to support quality medical institutions. (D. Novak, personal communication, January 1987). There are several stated goals for this venture and one of them is to attract the best talent to medicine and reality of shortage for so many years. The report indicates that a 50% increase above current faculty numbers is needed to meet immediate needs in physical therapy education.

What will be the consequences of continuing staffing shortages to our future growth and development? You may rest assured that other disciplines are waiting for us to default in areas traditionally in the domain of physical therapy practice.

Where would our profession be today if the longstanding staffing shortages could have been eliminated? Would we have been more responsive to the need to provide a technical level of care in our profession? Would we have been more responsive to the changing cardiovascular services as we know them today or would these services be subsumed as part of physical therapy? Would we have seen the emergence of the exercise physiologist's role in cardiac rehabilitation programs, the extent of involvement in sports medicine by athletic trainers, or the growth of physical therapy in obstetric and pediatric fields? I think not.

The full impact of others assuming responsibilities traditionally held by physical therapists will be difficult to assess in the short term, but the impact is certain to have long-term implications. The Task Force on Faculty Shortage in Physical Therapy Education reported that the critical factor to alleviate the shortage of qualified teachers is that immediate and long-term need is funding. It is acknowledged that the Association should be lobbying for increased funds for these fields. In one project developed by the Task Force, $540,000 would be required to produce 140 individuals with doctoral degrees. However, the budget was not accurate and we can have reasonable assurance that the projections can be met. One has to wonder whether the plan is strong enough? I strongly suspect that our leadership, although supportive of the concept, was stunned by the $3.8 million that the program would cost over its lifetime.

As I urge your continued support of the Foundation for Physical Therapy in its fund-raising efforts. You will be making an investment that will help to ensure the future of physical therapy.

If, for example, we consider the importance of the faculty shortage and its ramifications to our profession, it is clear that the association should be providing the resources to resolve this issue. It is not that we have an alternative and, more importantly, I believe that we are running out of time.

Sufficient evidence currently is available to confirm that payers of health care services will be intolerant of health care expenditures. Physical therapy is a cost-contained component of broader health care programs. Two of the most frequently discussed subjects are the importance of a liberal arts education before entering a professional curriculum and the ability of teachers in scientific schools to perform research.
what is on the drawing board for future reductions in health care expenditures. In this atmosphere, only those services proven to be essential to a patient's well being will survive. I as I see it, the extent to which physical therapy will thrive or survive in the future will be related directly to the issues of faculty development.

Having played a role in the formation of the Foundation for Physical Therapy and serving as the first Board Chairman of such an organization, one of the most personally rewarding experiences of my professional career. I am extremely proud and grateful over the progress this fledging organization has made in inception in 1979.

The Foundation was started with "seed money" in the amount of about $350,000 that was provided by the special arrangements made by many of our members to consider that today the Foundation has an investment portfolio of around $1,250,000, endowments in the neighborhood of $4 million, and annual contributions that are approaching $1 million. There is reason for our sense of pride and accomplishment (S. Seater, personal communication, May 1987).

"Never allow the complexity of issues you will face to either discourage or let you ignore those basic tenets on which this profession was founded. This should be the ultimate test for all major decisions that face our profession and our Association."

From the outset, I was convinced that the Foundation had unlimited potential because its goals were tied so closely to the survival of our profession, specifically providing funding for research and scholarship activities. I firmly believe that contributors to the Foundation fully realize that their futures indeed are related to the extent the Foundation can provide funding to carry out its basic programs. Because of this trust, I am confident that the endowment of the Foundation will climb to several million dollars in the not-too-distant future.

I urge your continued support of the Foundation for Physical Therapy in its fund-raising efforts. You will be making an investment that will help to ensure the future of physical therapy.

CHALLENGES FOR FUTURE GROWTH

In the past, I have expressed my opinions about certain events and trends that I feel will have a significant impact on our profession in the years ahead. You may recall my concerns about physician-physical therapist financial arrangements, now known as referral for profit, and remember my sentiments that direct physical therapist services should be included with the membership on numerous occasions dating back to 1973.1-5

I remain deeply concerned about anything and everything that has the potential to debase our profession; whether it be the improper use of personnel by our own members or the reaping of profits by practitioners outside of our profession from unethical referral arrangements. I stated in one of my talks on this subject that "referral for profit arrangements involving physicians and physical therapists are like a cancer eating away at the ethical, moral and financial fiber of our profession."6 I still feel that way. This situation must be corrected, and I am certain that this can be done, not by ourselves, but by others who recognize the pitfalls of such arrangements.

Statements and opinions contradictory to the Association's thrust to establish direct access by consumers of physical therapy services are viewed as regressive by many of our Association whose desire it is to move our profession along quickly to attain this method of practice.7 Some of us who have been around longer and who have more white hair have proposed a more deliberate approach. I believe the evolution to direct access to physical therapy services is inevitable given the profound changes that already have occurred in practice. The concern that I and others have is not so much with that outcome but rather that we be equipped fully and properly to meet the many attendant challenges, adversities, and opportunities this method of practice will present to us.

I recognize that the world and our profession have changed dramatically since I first became a member of this Association and that the problems our profession will confront as it moves into the 21st century will be far more complex and difficult to resolve than those of my time. One bit of advice may make the road ahead less difficult to travel. Never allow the complexity of issues you will face to either discourage or let you ignore those basic tenets on which this profession was founded. This should be the ultimate test for all major decisions that face our profession and our Association.

I have great faith that the future of our profession will be bright, despite the obstacles that must be overcome. I base this conviction on observing the younger clinicians in the profession whose base of knowledge and competencies cause me to place them in the first. It is their knowledge and how they apply it that will demand that our services be included in whatever form of health care this nation provides.

It has been a distinct privilege for me to have been able to serve this profession and this Association. In conclusion, I can say only that I have lived far more than I have given, or more than I ever dreamed was possible. I will always be grateful for choosing physical therapy as my life's work. I thank all of you for allowing me to share these thoughts with you.

"I have great faith that the future of our profession will be bright, despite the obstacles that must be overcome. I base this conviction on observing the younger clinicians in the profession whose base of knowledge and competencies...will demand that our services be included in whatever form of health care this nation provides."
The Twenty-Third Mary McMillan Lecture
presented
June 12, 1989
Nashville, Tennessee
by
Ruth Wood, PT, FAPTA

Ruth Wood was the twenty-third recipient of the Mary McMillan
Lecture Award in 1989. She was graduated from Mayo Clinic School of
Physical Therapy. Ms. Wood has served as a member of the Board of
Directors and as Speaker of the House for the American Physical Therapy
Association. She has also served in numerous offices with the Texas
Chapter. Ms. Wood has been the Association's representative to the
World Confederation for Physical Therapy (WCPT). She has received the
Lucy Blair Service Award and has received the Ruby Decker Award for
Outstanding Physical Therapist in Texas. She was appointed to the first
Board of Physical Therapy Examiners in Texas.
Footprints


Having stood before you so often as Speaker of the American Physical Therapy Association’s House of Delegates, I feel almost like an imposter to be here as the 1989 Mary McMillan Lecturer. I must confess, it is with great trepidation that I stand before you without my gavel in my hand, and I have an almost uncontrollable urge to call this meeting to order! When notified of this award, I had difficulty believing that it had really happened to me. Then when reading the nomination support provided by my good friends in the Texas Physical Therapy Association, I felt like the old lady in the nursery rhyme who said, “Oh me, oh my, can this be I?”

I am extremely grateful to be here and even more grateful that so many of you have chosen to be here also. I do hope that those with whom I share this honor are pleased to have me join their ranks and that something I say will be worthy to honor the memory of that legendary lady, our founding president, Mary McMillan.

I would be remiss if I did not thank some individuals who, to my great pleasure, are here today and without whose long-term support I might not be: Frances (Abbey) Abendroth, who

虽然不悦的会议和批判Roberts' Rules of Order but loving physical therapy, treated some of my patients, took care of my dog, and even cared for my mother so that I could go off to do APTA work, Jeannie Scheeneck, who, early in my career, insisted I attend district and chapter meetings and kept recommending me for activities in those components in such a way that I was ashamed to refuse to accept them, and my two sisters, Frances Dodge and Shirley J Wood, PhD, who are not only sisters but also two of my very best friends. They always seemed to believe, and to make me believe, that I could do anything that I set my mind to do. Unfortunately, it did not always work out that way, but I do thank them.

I wish to take this opportunity to thank all those who have served and those who currently serve on the APTA Board of Directors. They have made so many contributions. Board members spend an inordinate amount of personal time serving this Association, and they deserve our thanks. The proposals and policies developed by them for consideration by the House of Delegates, after much work and debate and even some compromise, have led to the advancement of our profession and our Association.

Of course you know that I cannot stand here without thanking all who have been delegates to our wonderful House of Delegates. The tremendous amount of work produced and actions taken are a matter of record, but it would be totally out of character if I did not give some advice to the delegates. It is imperative that all delegates continue to accept the responsibilities given to them by the Bylaws to determine the policies, the ethical principles, and the activities of this Association. It is their deliberations that must determine the direction the profession will take as well as its fate. We have an excellent Headquarters staff, which is vital to our existence. They do make a huge contribution. But there is a chain of command. Headquarters staff must continue to answer to the Board of Directors, and the Board of Directors must answer to and follow the mandates of the House of Delegates. Delegates must remember that they have the right, and sometimes the duty, to modify or reverse a decision of the Board of Directors. Our leaders, both staff and Board, should and do guide, but the members of this Association must never, ever, abrogate their responsibility for directing this Association in ways that will improve and preserve both it and the profession of physical therapy.
"What should guide our profession in the direction it takes, and by what should it be judged? Physical therapy is a discipline in its infancy, and as such has no acceptable reason for being except to affect individual needs by the treatment or prevention of disease and disability. Patients are our focus! Without them, we are nothing! They are our reason for being!"

For all of my physical therapy professional life I have been a clinician, which, incidentally, is the only thing I ever wanted to be. For me to speak on methods of research or education or to prognosticate the future of the profession, as my前述 methods would not only be foolish, but also impossible. Patients and their treatment have been my focus, so I will speak about patients and our responsibilities to them and ask you to consider the effect that our actions will have on them.

I quote a most familiar verse from Henry Wadsworth Longfellow's poem "A Psalm of Life": "Lives of great men are not built on a sudden spurt of energy. And, leaving behind unmarked footsteps on the sands of time."

I grew up in northern Indiana just a mile from Lake Michigan, and I remember the dunes along its shores. If one walked up the hills on which there was fine, dry, sandy sand and wind, their footsteps were not distinct and the shifting sands and blowing winds soon made them disappear. When the wind was at the edge of the lake, the footsteps were well defined but washed away by the very next wave. Yet there was always one area where the sand was packed, and the waves did not reach it. Distinct footprints that stayed intact could be followed a long way. What kind of footprints will we leave in the physical therapy profession today? What kind of footsteps will we leave? What kind of footprints will we leave?

I have much regard and admiration for you, my peers, and for all that is accomplished in the health care field by physical therapists. Please accept that as a "given" I share with you some of my concerns. I must ask your indulgence if I use the word "patient" too often. All we know that physical therapists interact with many individuals who are not "patients," and that the profession encompasses much more than just physical therapy. However, my concerns about our profession have to do with the effects of our actions on those we evaluate and treat.

What should guide our profession in the direction it takes, and by what should it be judged? Physical therapy is a service profession and as such has no acceptable reason for being except to affect individual needs by the treatment or prevention of disease and disability. Patients are our focus! Without them, we are nothing! They are our reason for being!

The ultimate criterion that must be used in determining the education of physical therapists and physical therapist assistants, the policies of our Association, our practice settings, our standards for practice, and, very importantly, our professional ethics must be: "Is the focus on patient care, and will the end results benefit, those we serve?" Every action we take as individual physical therapists, as members, and in every policy, we develop and every plan for the future we make, we must be evaluated within this context.

Before making any decision, we must first ask, "What benefits or detriment will this action have on the patients from whom we receive fees?" We must be the theoreticians that what good is for the patient is good for the therapist, is good for the Association, and thus is good for the profession. To reorganize that in a way that will treat the physical therapist or the Association before the patient can only invite disaster.

I have some concerns about the responsibilities of independent practice. You all remember that the House of Delegates, in 1985, adopted the policy that "A physical therapist may not be the party responsible for the health care system for evaluation, treatment, and treatment." Practice acts in 23 states now permit reimbursement without medical referral, and 17 additional states permit evaluation under that same condition. I sincerely hope that soon all physical therapists will treat patients for our independent practice. But I do have concerns.

In his article entitled "Whistleblowing in Physical Therapy," John Barzana wrote, "As physical therapists grow more autonomous, their responsibility to the patient, the profession, and the medical consumers increases." I agree, but wonder, are we each accepting and fulfilling those responsibilities? Are we even considering how we do this and what those responsibilities are?

In the Twenty-Second Annual Rice Lecture, Charles Magistro mentioned one who said, "I am convinced that no matter what expenses are incurred, the first specialty of physical medicine and rehabilitation failed to control physical therapists were being utilized and not laying hands on patients or dealing directly with their problems. We physical therapists now have a duty to be the profession to be jeopardized by failing to provide those services that justify our existence." Yes, the physical therapist must deal directly with the problem and his or her problems. If we are to be successful as independent practitioners, we must not only provide those services that justify our existence, but we must do so better than anyone else. Just announcing that a particular treatment or field is within our scope of practice and then jealously guarding it is not enough. We must prove to the community that we can do the best— in an ethical manner— at a reasonable cost.

I ask you now to consider a responsibility that comes with independent practice. You are not a physical therapist. You are a medical doctor. You are a nurse. You are a physical therapist. I believe that it is now our responsibility, even though we have never danced around the issue of it and even avoided the use of the word. The House of Delegates' policy calls it "evaluation." I call it "diagnosis." When I think of the word diagnosis, our definition of it, our debate over it, and even our avoidance in using it, I think also of a verse in James Russell Lowell's poem "Steadfast in the Gale." Who fears! Let corollaries shrinks/Let tractors spin/Whatever we have dared to think that dare we also say."

"Some say no medical diagnosis is necessary because the physical therapist just evaluates and interprets the results of that evaluation. . . . If we are to be effective in independent practice, we must diagnose! Let us dare to say it! The physicians will be unhappy. We have not progressed from being handmaiden of the physician to independent practice by keeping physicians happy to diagnose, we must have the knowledge. The physical therapy school must educate students so that all future physical therapists will be proficient in this area. That, of course, creates a big problem for the schools. I do not wish to debate the issue of who among us currently practicing are qualified to diagnose. Each of you must make that decision for yourself. I sincerely hope when you do make it, you will do so with concern for the patient and for the profession."

Let us now consider the role of the physical therapist in today's world. The shortage of physical therapists in all probability will exist into the next century. As our cost of living continues to outpace the average increase in the public's income, the high cost of medical care and some physical therapists' attitude that "physical therapists should not perform 'hands-on' treatment, causes me great concern. Some propose the theory that the physical therapist's time is too valuable to be spent treating patients or to be physically present at any time in settings such as nursing homes to supervise physical therapy assistants. They believe that physical therapists must become administrators of patient care rather than the doers of physical therapy.

I remind you of the words of Charles Magistro, just quoted, and some words by others. Florence Kendall—"The chief role of the physical therapist should always be that of an educator and guide, not a handmaiden."

The care of the patient is the ultimate, specific act that characterizes a clinic in a hospital, not from all others. Its obligation is transmitted as the heritage of the profession," and Neil Barden—"The most important choices we make as physical therapists are those we make about treatment for our individual patients."

In recent years, the physician-patient relationship has been transformed. Too many physicians spend far too little time with the patient, order tests without listening to or adequately evaluating the patient, and then order medicines without even waiting for the results of those tests. Are some of us following a similar path? But technology being substituted for technique? Are many of us falling to use our special skills and our special knowledge? Are we assigning the patient to physical therapist assistants or physical therapists to assist them in the proper evaluation or a plan for treatment and then providing inadequate supervision?
Does anyone remember when physical therapists locked horns with the physiatrists over their philosophy that it was necessary and proper for the physiatrists to be the intermediaries between the primary physician and the physical therapist, regardless of the expertise of either? We believed that this step was unnecessary waste of the patient's time and money. Some of our patients now abiding their responsibilities to properly supervise the physical therapist assistant, we still claim they are providing the service and reaping the financial reward? Is this attitude not analogous to the old attitude of the physiatrists?

We created the position of the physical therapist assistant because there was a shortage of physical therapists and we truly wanted to meet the need for a high quality of physical therapy. Our Association has passed policies on their role and supervision and spent much time revising and updating those policies. The Guide For Professional Conduct, in interpreting Professional Behavior, the charter covers delegation of responsibility and lists nine separate criteria for adequate supervision. Members of the Association are required to abide by the Code of Ethics. Yet, when I wonder, are all therapists meeting those requirements?

Physical therapist assistants are taught to expect the required supervision, and most would prefer to have it. If not provided, they believe there is a required to work unsupervised in settings that are neither profitable nor challenging to the physical therapist, work in limbs with supervision being done rarely or—when done well, there has been no evaluation by the physical therapist before treatment is initiated. Should they then not decide that it would be best to do so legally and ethically? With the outcry against skyrocketing medical costs—physical therapists are willing to amend statutes to permit them to work independently in nursing homes and home treatment settings? Will they perhaps also want the supervision of nurses or medical practitioners? We need this valuable group of people to continue to be our assistants, properly supervised by us, if we are to have any chance of meeting the physical therapy needs of the population and of controlling the quality of physical therapy.

In their book Medicine on Trial, Inderalt et al express the belief that it is appropriate for nurse practitioners (NPs) and physician assistants (PA) to practice independently in primary care situations, and then they state, "Physicians will want NPs and PAs to act in their original roles as the medical assistants of medical practice. But rather than remain overworked but underpaid medical assistants, NPs and PAs have broken off to become independent within their own right, moving into jobs left open by physicians who have left them for greener, more lucrative pastures." There is a lesson here for us. Please, let us not follow those footprints!

Another of my concerns has been about physical therapy practice acts. I have long questioned about their usefulness, their efficacy and whether there was a paucity of complaints to the state agencies responsible for enforcing them. I wondered whether we were more willing to report nonlicensed individuals purporting to practice physical therapy than we were to complain about violations of the laws by our peers.

Many years ago, when the Texas Chapter of the APA was working to obtain legislation to license physical therapists, there was much resistance by physicians. Texas was one of the last states to be without legislation, and I truly believed, at that time, that the public was well protected by such laws. Hoping to convince the physicians of this, I decided to collect information on the number of complaints and the disciplinary actions taken in all the other states. Surprisingly, most state agencies replied to my letters of inquiry, and also surprisingly to me, the compiled report showed few complaints filed against physical therapists, few disciplinary actions taken, and, if memory serves me correctly, only one license revocation. Several have since been reprimanded, and two members expelled. For comparison, according to the American Physical Therapy Association’s Oversight: A Prescription for Medical Licensing Board Reform, "In 1985 only 400 physicians’ licenses were revoked in the entire country than one tenth of a percent. Even that represented an increase of almost 60 percent from the previous year (1984) when only 255 licenses were revoked."

My last survey— and I do mean last—did not procure much information, but when one considers there are 80,000 active members in this Association as well as many practicing physical therapists who do not belong to the APTA, the little information it did provide, examined along with the Judicial Committee’s report, lead one to conclude that we are running parallel with medical practice in an unenviable way.

I am not going to bore you with examples of regulations. I suspect each of you can provide your own stories about physical therapists who claim prime mover is money, therapy that covers up shoddy deals with innovative contracts and creative accounting, therapists who have leverage on patients, no interest to those agencies reported no complaints in that three-year period. The combined complaints of 11 states totaled 82, and 2 other states each reported 20 complaints. Two state agencies reported many complaints, but did not provide data. We entice between those filed against physical therapists and those filed against nurse practitioners, behavior counselors, and others in capacities of more care.

There were about 50 disciplinary actions taken, which varied from letters of warning, advice on how to correct the problem with a requirement of proof of the correction, warnings, fines, suspensions, and—again one revocation. For the year 1988, 15 agencies reported 18 noncomplaints and 15 disciplinary actions. In that same year, the APTA’s Judicial Committee reported 26 separate com

Physical therapy today is big business and should be administered just as it is run as any other business. It should also be financially rewarding. Many of our peers have proven that they can provide ethical and good-quality care and still be financially successful. But the current trend does not look promising. Our Association is a failure at the triple bottom line.

Electronic mail— , we use it. I spend much of my time answering the same questions and sending the same information. This is a waste of time and money. We should be doing this in a more efficient manner. We have the technology for it. Let’s use it.

I would highly recommend that each of you read books such as TheSolid Gold Banknote, a satire by Edgar Bergen, MD, Confrontations of a Medical Historian, by Robert S. Mendelsohn, MD, and Medicine on Trial, by Irlander et al. These books paint a frightening picture of how many of the physical medicine profession have traded honesty for dollars, have traded emerging efficiencies, have traded technology for faster pace, and have displayed evidence that doesn’t have to be allowed to happen to physical therapy. You are the ones who don’t let it happen!

The medical profession has not adequately controlled its practitioners. Is the physical therapy profession also failing to do so? Are we acting as if the uncontrollable is also the unmentionable? I am not suggesting that a large proportion of our members are unethical, but I do not believe that. Nor am I proposing that we look over each other’s shoulders as we go on a witch hunt for unethical and illegal acts. I am proposing that when we learn of such acts, we do not look the other way and keep silent, and by our silence give tacit approval. We each need to remember the following lines from Ogden Nash’s poem, “Yes and No” as we examine our tolerance for inferior treatment and unethical behavior. “Sometimes with secret pride I sigh/To think how tolerant am I/Then would I drag my silly mine/Tolerance a rubber spine/Tolerance or speaking?” The choice is yours.

If licensing laws for members of a profession are intended to protect the public and not intended for the enhancement of that profession (and I am afraid the jury will still be out on that), and if our Code of Ethics is worth the paper on which it is printed, then the laws and the Code of Ethics must be enforced. Let us not wait until there is a general uproar about gross negligence, or now about medicine, before we act. Independent practice gives us the option of focusing on the patients and adjusting our treatment, but we must always remember that we have the responsibility to provide reasonable care, and that we have the legal obligation to provide reasonable care, and that we have a duty to practice in the public interest.
The physical therapist who provides inferior care, treats unnecessarily or excessively, overcharges, supervises physical therapy assistants or physical therapy aides improperly or not at all, or makes unethical financial arrangements is legally and morally responsible for his or her acts. However, must not the members of the profession who tolerate such acts bear some of the blame?

Even though it is true that most of our members are ethical, by allowing such acts to go unchallenged are we, in the eyes of the public, each reduced to the lowest common denominator? Not only can unethical, immoral, and illegal acts be potentially damaging to the consumer, but they also compromise the integrity of our entire profession. They must not be tolerated. Please, see that they are not.

This Association can and must create the right environment for ethical practice and must know the results of its efforts. I suspect right now many of you are thinking, “You can’t legislate morality.” Of course we cannot legislate morality, but individuals are often only as good or as bad as the educational, cultural, and societal conditionings they receive. If we, as individual physical therapists and collectively as an association, expect our peers to be ethical, there is a much better chance that they will be ethical.

Henry David Thoreau, in “Civil Disobedience,” stated, “It is truly enough said, that a corporation has no conscience; but a corporation of conscientious men is a corporation with a conscience.” Can we not be a profession of conscientious individuals and thus a profession with a conscience? Would it not be fitting and wonderful for the physical therapy profession to be a model for ethical medical practice?

What path will we take? Let us not take one that others have made—one that could lead to greed, egocentricity, ineptitude, technology without concern, and useless or nonessential treatment. Instead, let us make our own path by using the criterion that our focus is on and our end results must benefit those we serve. Then let us follow along that path, proving that our reason for being is to serve patients and that effective, ethical physical therapy is congruent with financial success.

What footprints will we leave on the shores of the medical world? Let them be deep and distinct and show purpose in their direction . . . footprints that will not be washed away by turbulent waters or blown away by winds of change . . . footprints that can be followed. Let those who follow them find that they lead to an honorable, worthwhile, caring, and financially rewarding profession. Yes, let them lead to a profession with a reputation for excellence and a tradition of morality.

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Don Lehmkuhl was the twenty-fourth recipient of the Mary McMillan Lecture Award in 1990. He received a Bachelor of Science degree in physical education from the University of Nebraska and his master's degree and doctorate from the University of Louisiana. Dr. Lehmkuhl has been an officer several times in the Ohio Chapter of the American Physical Therapy Association and served on the Journal Committee and on the Committee on Research. He has presented at numerous APTA Annual Conferences. Dr. Lehmkuhl has also received the Geneva R. Johnson Lectureship from the Society for Behavioral Kinesiology.
Camelot Revisited: Legacy of the Physical Therapy Education Program at Case Western Reserve University

... I am deeply touched by the expressions of support by former students, co-workers, and colleagues that must have been submitted to convince the selection committee to pick me for this ultimate award. ... I hope that I will in some small measure prove equal to the task before me.

First, I want to remind you of a few historical events. The American Physical Therapy Association (APTA) was founded in 1918. Mary McMillan died in 1959. The first physical therapy education program designed to provide the initial professional preparation at the graduate level was established at Western Reserve University (later named Case Western Reserve University [CWRU]) in Cleveland, Ohio, 30 years ago. The first student was enrolled in 1960 and graduated in 1962, the last class graduated in 1971. The House of Delegates voted in 1979 to set a target date of December 31, 1990, for current and future education programs to prepare persons for entry into the profession as physical therapists to be organized at the post-baccalaureate degree level.

The goal to which other programs aspire. It was the Camelot of its time. Camelot, you may recall, was the legendary capital of King Arthur's kingdom about AD 450 to 650. It was the place in which King Arthur developed the philosophy of the Round Table, around which the Knights who accepted King Arthur's philosophy assembled. King Arthur was dismayed at the waste of human potential that was rampant throughout his realm. Young men wandered about picking fights to demonstrate their superior strength and skill in individual combat. Many of the encounters ended in death for the loser. One day, Arthur came to the realization that it might be possible to channel these violent energies into a path that addressed some of the needs of society: coming to the aid of the unfortunate, righting the wrongs perpetrated by scoundrels, protecting the interests of the weak. He set down a code of conduct and invited a few outstanding knights in his kingdom to begin listing by the code. The seven cardinal virtues of the knights of the Round Table were: Courage, Purity, Hardi, Humility, Honesty, Diligence, Charity, and Fealty. Because the table was circular, no one of the knights seated there could take precedence over another. The concept became appealing, and, as the fame of their good deeds spread, knights from throughout Europe...
In Cleveland, Ohio, a newly assembled faculty was busily engaged in polishing a curriculum for the preparation of students to become physical therapists who would 'make a difference' in the field of physical therapy.

At this point, I need to depart from our story to tell you how I came to choose the theme and title for my lecture. In the opening reception of the Combined Sections Meeting in Honolulu, Hawaii, in February 1989, I encountered my old friend, Sam Felson. Sam Felson is a physical therapist who helped me to design the curriculum for the Case Western Reserve University Physical Therapy Program. He introduced me to the idea of a 'curriculum' in the field of physical therapy.

Well, Sam, thank you for suggesting the theme for my lecture. I decided to honor the faculty and the graduates of a program that came very close to perfection. It was Camelot, and I decided to express my gratitude to the faculty by naming the event after a memorable experience in my career.

Catherine Worthingham, Louise Schachter, and John Millis, president of the university, Dr. Millis, after reviewing an early draft of the proposal for a new, improved baccalaureate-degree program, expressed the opinion that the knowledge, skills, and capabilities expected of the graduates of the proposed physical therapy program could best be developed through graduate education. Other programs that prepared students for entry into high professional professions were in operation in the graduate school. Dr. Millis maintained that any new program established at his university should be equal to the high standards of other divisions of the graduate school. In February 1990, the curriculum plan was approved by the Graduate Council and faculty recruitment began. Louise secured the services of Dr. Catherine Worthingham ("Catherine") Johnson in 1990. In December 1990, Louise made an offer to the faculty. I agreed to visit the program to discuss possibilities with university officials and other potential faculty members. Upon arrival, I encountered what we came to know as "interim interview." Over the years, the university often cooperated with us when we were courting potential candidates for important positions in our program.

The program was housed in the basement of Focila Hall, and the building was three rooms with an over-flowing. Over the past several years, other faculty members working in their 4-48 cubic offices had to go out the side door, through the snow drifts, and into the back door to reach the common restroom. In February 1989, the program moved to Aiken House and renamed the Physical Therapy Building and occupied the basement and the first two floors, eventually taking over the third floor from the Psychology Department as well.

Curriculum

The curriculum was divided into three phases, which covered two academic years and one summer (Appendix 1). Phase I, the first two semesters, was essentially a study of the normal structure and function of the body (Fig. 1), basic principles in the administration of physical therapy procedures, and development of beginning skill in applying physical therapy procedures. Phase II included studies of abnormal structures and function of the body and application of physical therapy principles and procedures to abnormal conditions. Phase III included submission of a thesis and courses in administration and supervision, curriculum development, and principles of teaching as well as transition to full clinical participation. Although the major portion of clinical education occurred during Phase III, the students began acquiring clinical experience during the first semester of Phase I and continued to gain increasing breadth and depth of clinical experience throughout all phases.

First Year of Employment

Each graduate of the program agreed to accept employment for one year as a hospital department approved by the faculty. The faculty believed that the first year of full-time clinical practice was an essential component of the educational experience for students in the program. This first year of employment was especially important to provide new graduates with adequate supervision as well as the opportunity to increase the knowledge and skills acquired as a student. In return, the graduates shared their knowledge and skills (particularly regarding clinical investigation) in a setting that was selected to encourage the growth and development of the recent graduate.

Reflections

In reflecting on the policies we set, the activities in which we engaged, and the lessons we learned at CWRU, the following stand out:

1. We served considerable time and effort at the beginning to drafting a statement of philosophy for the program that we could each support (Appendix 2).

2. We established traditions right away:
   - A shoulder patch and pin were designed, which students wore in the clinic (Fig. 2).
   - The CWRU Mary McMillan Lecture was established in 1962, with Catherine Worthingham delivering the first address (Appendix 3). The first CWRU Mary McMillan Lecture was presented by Mildred Binion at the CWRU Annual Conference in Denver, Colo., in July 1964.
   - An alumna association was formed. The tradition that evolved made the group very cohesive and helped to promote regularity and continuity.

3. We involved local clinicians in planning the curriculum, evaluat...
research at the next APTA Annual Conference.

8. Emphasis was placed on the development of skills in locating, assessing, and drawing inferences from information rather than memorizing a mass of facts.

9. We took full advantage of opportunities to have visiting experts in the field (e.g. Signe Brunsström) provide classes, seminars, or workshops, even though the topic was out of sequence, so that students could meet and discuss issues with these experts. Such opportunities increased because of the establishment of the Continuing Education Program as a component of the Graduate Physical Therapy Program in 1965. This program was headed by Mary Eleanor Brown and offered many valuable learning opportunities to physical therapists throughout the country. Especially valuable was a series of “refreshers” courses designed to assist the return of former clinicians to the workforce.

10. We reported on significant activities going on within district, state, and national components of the Association. Students saw the newly emerging professional identity in issues affecting the profession.

11. The philosophy of the program was dynamic and aimed at preparing graduates for the future. This goal was achieved to a remarkable degree.

12. We also made mistakes. For example, in the early years, each faculty member required students to prepare a term paper, which was due at the end of the semester. With five classes, students had to prepare five term papers. By the time they were graded and returned, the topics were forgotten.

A student rebellion forced the faculty to realize the purpose of the assignments and the best way of achieving them. Therefore, the student was guided in selecting the topic to be researched, and a faculty advisor was assigned to whom the paper was submitted in stages during the year. This process provided opportunities for critique and revision. The product often served as the basis for the thesis, because the topic selected always dealt with an application of science to a health problem treated by physical therapists.

Follow-up Survey of Graduates

In 1968, Geanie Johnson, Elizabeth “Bessy” Linell, and I conducted a follow-up survey of the 54 surviving graduates (Appendix 4 of the CRB Graduate Physical Therapy Program). The data returned from 50 (93%) of the graduates yielded information that reveals their career development in considerable detail, as well as the relationship of career development to the philosophy of the education program. Descriptive statistics revealed that 70% of the graduates were still actively practicing physical therapy (46% full-time, 24% part-time), 8% were still full-time graduate students, 8% were engaged in outside of physical therapy, and 14% were not currently employed (home-makers). A majority of those employed in physical therapy anticipated remaining in the field because of interest (72%), job satisfaction (66%), and adequate financial remuneration (56%). Twelve percent had earned a doctoral degree, and 44% were associated with academic programs in some capacity. During the 145 years (average for all graduates), each graduate had participated in an average of 15 continuing education courses, psychological presentations, and published one or two articles. An update of selected portions of the survey in 1976 revealed that 60% of the 54 surviving graduates were still in the field of physical therapy, but 26% were not currently working, 26% were in another field, and 8% were retired or could not be located. The results provide substantial evidence to support the conclusion that the program prepared graduates with long-term dedication to physical therapy as a profession, teachers, and leaders.

In addition, it is significant to note that three of the faculty of that program have been honored by being named Mary McMillan Lecturers: Genevieve Johnson, Dot Pinkston, and me.

Denouement of the Program

You may ask, “If that was such a great program, why is it no longer in existence?” The answer is that it fell victim to the Vietnam War. From the outset, the program was handicapped by grants. Student tuition covered only a fraction of the costs of the program. In 1968, the heavy costs of the Vietnam War caused major reductions in federal funding of research and education in universities throughout the nation. Budgets of funded programs were slashed in half with little or no warning. Grant funding of the physical therapy program was not reduced. However, other programs within the university faced severe cuts, which forced layoffs of staff. The university could not pay many of its bills. A task force was convened by the president of CRB to study the potential financial exposure facing the university in the event that further cuts in federal funding were made. Recommendations of the task force included cutbacks in the Graduate Physical Therapy Program. We fought that decision, but lost. Thus, students admitted in the fall of 1969 and graduating in 1973 comprised the last class.

Lessons Learned from the Past 30 Years of Academic and Clinical Involvement

The science of physical therapy draws heavily on the knowledge developed in the biological, physical, chemical, and social sciences. The art of physical therapy draws on knowledge from the humanities, and practical wisdom. Students learn the fundamentals of health care professions, physical therapy has a uniqueness that lies largely in the application of knowledge, rather than in the creation of new knowledge.

For physical therapy to continue to provide high-quality and effective health care services, physical therapists must initiate and participate in the research needed to substantiate current and future practices in the field.

Our interventions cannot be over-emphasized.

Standardized Documentation

The physical therapy staff in clinical settings should work toward the establishment of standardized documentation that will enable us to use records with confidence for two different, but equally important, kinds of clinical research. The first is descriptive research (i.e., research that will describe what we are doing with a patient at a given time and what happens to the patient as a result). The second type of research is interventional and is designed to answer the question of why a specific response occurs. Both require the formulation of a researchable question and analysis of the recorded results of clinical evaluations performed on patients by physical therapists.

Posing Answerable Questions

Good research is the process of positing a researchable question and then systematically collecting data to provide a convincing answer to the question. Among the physical therapy manuscripts I have reviewed for possible publication, the purpose of the study was unclear, either because no research question had been stated clearly or because the question (or its answer) could not be considered an answer to a question. An answerable question is one in which the answer consists of evidence in the form of data. The data are gathered by making observations or measurements. The success of the research effect can be rated in terms of how convincing the evidence appears when judged by the users. Early researchers noted that understanding the nature of evidence can be improved by understanding the nature of data.
"The faculty expected each student to succeed. We were there to help the students when they needed us. We set high standards, made good opportunities available, and made the students feel special. They rose to the occasion."

"I fully support the concept of developing 'centers of excellence'. . . . The amount and quality of productivity from a critical mass of capable professionals who complement one another far surpass the productivity of the same individuals working in isolation."

"I support the concept of ensuring equal opportunity and then nurturing potentially exemplary programs to achieve excellence."

"I challenge you to go forth and create your own Camelo to make a better world."

References
### PHASE I

**Winter and Spring Semesters**

**Academic Year 1**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Therapy 401 &amp; 402</td>
<td>5.5</td>
</tr>
<tr>
<td>Semesters 1, 2</td>
<td></td>
</tr>
<tr>
<td>CLINICAL SCIENCE I &amp; II</td>
<td></td>
</tr>
<tr>
<td>Integrated with Anatomy and Physiology</td>
<td></td>
</tr>
<tr>
<td>History of physical therapy, professional ethics, opportunities in the profession, field trips to physical therapy departments and special treatment centers.</td>
<td></td>
</tr>
<tr>
<td>Methods and forms of communication with special emphasis on scientific writing, current professional literature, and effective use of library facilities.</td>
<td></td>
</tr>
<tr>
<td>Kinesiology, with emphasis on specific muscle function, physiological and mechanical principles related to muscle function, and the methods used in assessing functional status of the neuro-musculo-skeletal systems; an analysis of patterns of normal gait, introduction to use of orthotic devices.</td>
<td></td>
</tr>
<tr>
<td>Therapeutic applications of heat, cold, water, massage, electromagnetic radiations, low frequency currents, and ultrasound; physical and physiological bases for applications.</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of purposeful graded exercise; planning for an effective program of therapeutic exercise.</td>
<td></td>
</tr>
<tr>
<td>Exercise, aseptic, and isolation techniques.</td>
<td></td>
</tr>
<tr>
<td>Introduction to Clinical Area.</td>
<td></td>
</tr>
<tr>
<td>Physical Therapy 405 &amp; 406</td>
<td>4.4</td>
</tr>
<tr>
<td>Semesters 1, 2</td>
<td></td>
</tr>
<tr>
<td>HUMAN ANATOMY (Lecture, Laboratory)</td>
<td></td>
</tr>
<tr>
<td>Integrated with Physiology and Clinical Science I &amp; II.</td>
<td></td>
</tr>
<tr>
<td>A detailed study of the gross anatomy of the human body, emphasis on musculo-skeletal, cardiovascular, peripheral and central nervous systems. Dissection of the human cadaver and microscopic study of the nervous system are included.</td>
<td></td>
</tr>
<tr>
<td>Physical Therapy 407 &amp; 408</td>
<td>4.5</td>
</tr>
<tr>
<td>Semesters 1, 2</td>
<td></td>
</tr>
<tr>
<td>HUMAN PHYSIOLOGY (Lecture, Laboratory)</td>
<td></td>
</tr>
<tr>
<td>Integrated with Anatomy and Clinical Science I &amp; II.</td>
<td></td>
</tr>
<tr>
<td>A detailed study of the functioning of the human body, with special emphasis on the physiology of the neuromuscular, cardiovascular, respiratory and central nervous systems. Establishes a basis for understanding treatment procedures.</td>
<td></td>
</tr>
<tr>
<td>Education 450</td>
<td>3</td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION TO STATISTICAL ANALYSIS</td>
<td></td>
</tr>
<tr>
<td>A basic course with emphasis on applications to measurement procedures in education, psychology, nursing and social sciences.</td>
<td></td>
</tr>
</tbody>
</table>

### PHASE II

**Winter Semester**

**Academic Year 2**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Therapy 403</td>
<td>5</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>CLINICAL SCIENCE III (Lecture, Laboratory)</td>
<td></td>
</tr>
<tr>
<td>Integrated with Clinical Medicine and Clinical Arts I</td>
<td></td>
</tr>
<tr>
<td>Use of evaluation in determining physical therapy and other treatment procedures in evaluation.</td>
<td></td>
</tr>
</tbody>
</table>

*Reprinted from Case Western Reserve University Graduate Physical Therapy Program Brochure, 1962*

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**Appendix 1 (Continued)**

### Course Number

| Analysis of movements of the human body in relation to causative and contributory factors. Physical and physiological concepts and procedures of exercise in prevention of disability; muscle training and increase in functional ability; use of orthotic and prosthetic devices. Orientation to medical and surgical nursing. | |
| Physical Therapy 409 | Semester 3 | 5 |
| CLINICAL MEDICINE | |
| Integrated with Clinical Science III | |
| Physical Therapy 413 | Semester 2 | 2 |
| CLINICAL ARTS I | |
| Planned experience in departments of physical therapy; gradual progression of participation in physical therapy; emphasis on basic scientific principles which determine therapeutic application. | |
| Physical Therapy 503 | Semester 3 | 3 |
| INTRODUCTION TO SCIENTIFIC INQUIRY | |
| Theory and use of the analytical method of problem solving; elements of scientific writing; critical evaluation of scientific literature; review of the literature in a selected area; formulation of a thesis proposal. | |

### PHASE III

**Spring Semester Summer Sessions**

**Academic Year 3**

| Physical Therapy 414 & 415 | Semester 4 | 6 |
| Semester 2, 3rd Year | |
| CLINICAL ARTS II & III | |
| Planned experiences in departments of physical therapy, continued in gradual progression of participation in physical therapy with emphasis on basic scientific principles, inter-professional relationships, and orientation to department organization and administration. | |
| Physical Therapy 504 | Semester 4 | 3 |
| ADMINISTRATION OF PHYSICAL THERAPY SERVICES | |
| Principles of organization, management and supervision with emphasis on administration of clinical physical therapy facilities. | |
| Physical Therapy 506 | Semester 4 | 1 |
| ROLES IN HEALTH CARE | |
| Survey of the role and function of selected health professions and their inter-relationships in patient management. | |
| Physical Therapy 508 | Semester 4 | 3 |
| CURRICULUM DEVELOPMENT | |
| Introduction to philosophy of education and theories of learning and their relation to curriculum planning. Development of objectives, learning experiences, and evaluation in physical therapy education. Includes directed teaching. | |
| Physical Therapy 601 | Semester 4, 2nd Year | 6 |
| THESIS | |

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Physical Therapy/Volume 70, Number 11/November 1990
Appendix 2. Philosophy of the Graduate Physical Therapy Curriculum

The Faculty of the Graduate Physical Therapy Curriculum, Case Western Reserve University accepts and supports the following philosophy:

Man is endowed with certain rights and privileges. He is entitled to respect for his person and to maintenance of his dignity. As an individual he occupies a position in his family, community, and place of employment. Each individual has obligations to himself and to society.

Impairment of normal function alters man's role in society. His role may be altered temporarily or permanently and in providing service to him it is necessary for the physical therapist to comprehend the implications of disability to the individual. Physical therapy is represented in the evolving concept of comprehensive health care. As a member of a health profession working cooperatively with the physician and other health personnel, the physical therapist has a unique privilege in helping persons attain important elements and components of personal independence. A physical therapist participates in health care by evaluating patients' capacity for physical performance and selecting and administering appropriate physical measures and activities.

The needs of society continually modify the demands imposed on the health professions. As a result, there is a shifting of roles and responsibilities within the professions and from one profession to another. The role of the physical therapist is a dynamic and evolving one. To enable the physical therapist to contribute maximally to health care, education must equip him to examine his role, to modify it appropriately and to participate in it fully. Education must prepare the physical therapist to accept the increased responsibilities of the profession in service, research, and education. This preparation is best provided at the graduate level.

The basis of graduate education is the willingness and the desire on the part of the student to read, to think logically, soundly and creatively and to assume considerable responsibility for his own education. To do so the student must have the maturity to exercise good judgment and self-discipline. He must also have the necessary educational background and academic abilities.

Graduate education provides opportunities which prepare individuals to progress into positions of responsibility and leadership. The application of knowledge is directly dependent upon the acquisition and understanding of principles from general and professional education. The learning process and the integration of knowledge, skills and attitudes by the student is facilitated by horizontal and vertical co-ordination of the learning experiences. Learning occurs most efficiently when experiences are designed to meet the needs of individual students and when the student-teacher ratio is consistent with the level of student development.

The concept of professional responsibility is best developed by precept and example of the faculty, both clinical and academic, and other members of the professional community. Although the student has responsibility for his actions, the faculty possesses responsibility for providing an environment that is conducive to the acquisition of the knowledge, skills and attitudes necessary for a high level of performance. Effectiveness is increased and expertise is developed through continued learning. The responsibility for continued learning rests with the individual.

*Reprinted from Case Western Reserve University Graduate Physical Therapy Program Brochure, 1962

Appendix 3. Case Western Reserve University—The Mary McMillan Lectures

The Future of Physical Therapy Education, presented by Catherine Worthingham, PhD (1962)
The Uncommon Physical Therapist, presented by Helen J. Haslip, PhD (1964)
Contributions of Physical Therapy to Medicine, presented by Jacqueline Perry, MD (1965)
A Salutary Process in Education for Physical Therapy, presented by Sarah S Rogers (1966)
Physical Therapy and World Health, presented by Ruby Decker (1967)
The Nation as a Force in Physical Therapy Education, presented by Carmella Gonnella, PhD (1968)
Continuous Renewal, presented by Margaret L. Moore (1969)

*Later earned Doctor of Philosophy degree.
*Later earned Doctor of Education degree.
*Later earned Doctor of Medicine degree.
*Decreased.
The Twenty-Fifth Mary McMillan Lecture
presented
June 24, 1991
Boston, Massachusetts
by
Robert C. Bartlett, MA, PT

Robert C. Bartlett was the twenty-fifth recipient of the Mary McMillan Lecture Award in 1991. He was graduated from Springfield College and New York University, where he received his certificate in physical therapy and also a Master of Arts degree. Mr. Bartlett has received the Lucy Blair Service Award of the American Physical Therapy Association. He has also received the Robert C. Bartlett Trustee Recognition Award and the Charles M. Magistro Distinguished Service Award from the Foundation for Physical Therapy, Inc. Mr. Bartlett has served as Vice President, member of the Board of Directors, and President of APTA. He has also been the president of the New York Chapter.
In Our Hands

(Barrett RC. Twenty-Fifth Mary McMillian Lecture: in our hands. Phys Ther. 1991;71:833-841.)

What a humbling experience it is to have been selected to present the Twenty-Fifth Mary McMillian Lecture. The emotions I experienced when informed of my selection by American Physical Therapy Association (APTA) President Jane Matthews ranged from the highest level of excitement to a similar level of fear. As the initial excitement abated, I was quickly overcome by the awesome responsibility of this distinguished lecture, named in honor of Mary McMillan and established in recognition of the leadership she provided to our Association and to the profession of physical therapy. I did not have the privilege of knowing Ms. McMillan; however, I believe I have been influenced greatly by what I have read and heard from others regarding her dreams for this profession. It appears she possessed unending energy and vision. The responsibility of presenting this lecture has been made even more challenging by the fact that I have known most of the previous McMillan Lecturers, many of whom have served as role models during my 34 years in our profession. I am deeply honored to join such a distinguished company of physical therapists.

Nancy Watt, in the Eighteenth Mary McMillan Lecture, stated, "The McMillan Lecture is a time for remembering." I have found the preparation of this address to be a wonderful period for reflection on the past, consideration for the present, and dreaming for the future. It has been an awakening experience, full of pride, joy, disappointment, and fear, but, most of all, it has been enormously satisfying as I have reflected upon my experiences as a physical therapist, clinician, educator, and volunteer within the APTA. Such retrospect has enabled me to relive many joyful personal relationships—which are, after all, probably the most important outcomes from everything we do in life—and has allowed me to more clearly identify the many individuals who have been eminently important to me over the years and ultimately responsible for my being chosen to give this address. Foremost in this group is my family. My professional responsibilities, including participation in the functions of the APTA, have demanded time to engage in numerous activities, as well as time required to think and do one's homework. My wife, Judy, and my children, Chuck and Jessica, fortunately have recognized how important involvement in my profession has been for me. They have been tolerant when I missed school and social events that were important to them. There have been long stretches of time when our weekends failed to exist, and, I am certain, occasions when their peers wondered whether there was really a husband or dad. I give my love and appreciation to them, they should consider themselves recipients of this award. Further, I wish to recognize my father, Charles, and my late mother, Gertrude, for instilling within me the values system to be a part of a service profession.

I deem it fortunate that my professional beginnings were in the Greater New York District of the New York Chapter of the APTA, which like many components has a great tradition of enticing young physical therapists to become involved in the Association and to seek leadership positions. It was within this setting that I joined a group of individuals who held the concept that every issue needed to be extensively investigated and debated—individuals with great pride in being physical therapists and with enormous expectations for the future of this profession. It was a fun time, and I certainly never realized how important those personal relationships and debates would be to my future and, further, that these beautiful relationships would last more than 30 years. The intellectual curiosity, human values, and dreams for physical therapy shared with me by Rosemary Scully, Sam Feinberg, Phyllis Lehman, the late Steve Rose, and the late Barbara Consoy have been, and always will be, very special to me. These individuals have been recognized for their service to the profession of physical therapy, but I believe...
it is important that I acknowledge them for their friendship and contribution to me personally.

As I reflect upon my professional journey, I also wish to take this opportunity to express gratitude to all of you with whom I have served on the boards, committees, and task forces of the New York and North Carolina Chapters, the APTA, and the Foundation for Physical Therapy Inc. It is impossible for me to express an appropriate level of appreciation for the counsel, emotional support, guidance, and affection I have felt from my interactions with each of you. Your commitment to the profession and your honesty in dealing with the issues that have confronted us, all of you together, are the cornerstone of the evolution of our profession of physical therapy. There are three individuals, however, whom I would like to give special thanks for what they have meant to me in my career: Jay Schleicher, my friend and colleague of many years, for his support of my involvement in the volunteer activities of the Association, Charles Millikan, for our collegial relationship and for the wisdom and guidance he has shared with me in the multitude of hours we have spent discussing physical therapy, and John Malley, for the way he has steadily upheld the concept of volunteerism through his support and leadership of the Foundation for Physical Therapy Inc.

It is my desire to share with you my views on how the changing needs of our profession and the needs of society have influenced—and I believe will continue to influence—the growth of physical therapy as a profession. I will examine key events in our past that have been vital to our professional development and then discuss concerns I have in the areas of practice and education—concerns that must be faced and resolved if we hope to witness even greater strides forward as our profession moves into the twenty-first century.

As HG Wells has stated, "The past is but the beginning of a beginning, and all that is and has been is but the twilight of the dawn." When I accepted the responsibility for this lecture, I was unaware that this was to be the last year of the Association's centennial year. This milestone, and the fact that 70 years have passed since the historical beginning of our profession, only serve to reinforce my decision to review the past in order to chart our progress and to examine socioeconomic, political, and environmental factors influencing the evolution of our profession.

During my years of involvement within the leadership of the Association, I frequently reviewed the literature and conversed with leaders of the past in order to gain a better understanding of our history. I rediscovered my personal challenge by the need to identify the underlying factors that, in the past 70 years, have influenced and allowed us to cope with the multiple variables influencing our course of action. Although these factors varied from one period to another, I have been impressed that altruistic values of service to others and the search for improvement of physical therapy as a profession were our long-term objectives. As Helen Hinds stated in the Thirtieth Mary McMillan Lecture:

I reflected on a vision I have for a great profession—one unified by shared values, shared goals, and shared attitudes. These shared experiences and dreams are what give a profession unity, its identity, its voice. To determine to exist, and its capacity to exist.

The early years of our profession were marked by consensus in respect to professional values and goals direct in our relationship to the needs of our society. Consensus centered on the value of physical therapy in expanding health care systems and not on a preoccupation with the financial status of the physical therapist. The shared belief, the dreams, focused on the ever-increasing need for knowledge for physical therapy, on the expanding horizons of our education programs, on expansion of the role of the physical therapist to demonstrate a higher level of authority, and accuracy in public service, and providing us with the tools to cope with the multiple variables influencing our course of action. Although these factors varied from one period to another, I have been impressed that altruistic values of service to others and the search for improvement of physical therapy as a profession were our long-term objectives. As Helen Hinds stated in the Thirtieth Mary McMillan Lecture:

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"... our deliberations of today are crucial to the determination of our role and position in tomorrow's health care system."

For the 48% of our membership who are members of the American Medical Association, the time has come to consider the future. The public's demand for accountability and transparency requires that we begin to articulate our vision and the steps we will take to achieve it.

The core of our vision is the health care system. It is a system that is broken and needs fundamental reform. The current system is unsustainable, it is ineffective, and it is unjust. It is time for us to act to address these problems and to chart a new course for the future of health care.

We must recognize that our current system is not working for everyone. Many Americans are unable to afford the care they need, and millions are uninsured. The system is too expensive, and the premiums and out-of-pocket costs are too high. It is time for us to address these issues and to create a system that is affordable for all.

We must also recognize that our current system is not equitable. Too many Americans are denied access to care, and too many are unable to receive the care they need. It is time for us to address the disparities in our system and to create a system that is fair and just.

Finally, we must recognize that our current system is unsustainable. The costs of health care are rising too fast, and the system is breaking down. It is time for us to create a system that is sustainable and that can provide care for all Americans.

We must work together to create a new vision for our system. We must work together to create a system that is affordable, equitable, and sustainable. We must work together to create a system that is responsive to the needs of our patients and that is responsive to the needs of our communities.

The future of health care is in our hands. It is up to us to create a system that is better for all Americans. It is up to us to create a system that is sustainable and that can provide care for all.

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The future of health care is in our hands. It is up to us to create a system that is better for all Americans. It is up to us to create a system that is sustainable and that can provide care for all.
"The principles of our profession—what we stand for—must be the foundation for the development of strategies directed at ensuring that physical therapy has its rightful place in changing this health delivery system."

I do not believe that we have yet succeeded in clearly establishing our identity. In the same vein, what is the public to assume when we can label ourselves as "physical therapists," and be assured of standing in the same means that we are named? Is it our duty to inform the public of the nature of our work? Yes, it is. Is it our duty to educate the public as to the nature of our work? Yes, it is. Is it our duty to assure the public that we are qualified to do the work? Yes, it is. Is it our duty to provide the public with the facts necessary to make informed decisions about their health? Yes, it is. Is it our duty to protect the public from harm? Yes, it is.

I believe that pride in being called "physical therapists"—pride founded in the beliefs that we make a difference and that we are unique in our knowledge and skill—is a primary element in establishing our identity and reinforcing our professionalism.
...a primary question is whether physical therapy is a business or a profession—in reality, I believe it is both.

that certain iniquities, which is necessary for continued learning, and therefore set for mediocrity. This is what scares me.

These are not characteristics I observe in persons seeking admission to our educational programs. I believe it is likely that their exposure to recruitment literature, educational experiences in our curricula, and initial practice experiences must be fostering the development of the traits. I judge this to be an area in an area in great need of our attention and action.

In preparing for this address, nothing has caused me greater concern and difficulty than the analysis of the broad subject of current physical therapy employment and business practices and the implications for our continuing professionalization. It should be recognized that the historical non-for-profit era in which our profession predominantly practiced during the past 40 years possessed a charitable mission focused on service to people with the goal of expanding resources to improve the quality of care that was provided. That environment fostered the goals and objectives of our profession and served as an impetus to the growth of physical therapy. Concurrently, physical therapy private practice evolved and provided many additional strengths and new perspectives to practice. In essence, these environments provided great freedom in our provision of service to the crucial to independence in practice.

During the past decade, we have seen an increase in the profitability of physical therapy services and the trend toward the delivery of these services to be a business—a trend that gives me great concern. With the nation's current concern to reduce health care costs, however, all delivery settings are seeking strategies to lower costs and increase productivity. The changing nature of health care, and the increased competitiveness in the delivery system, will pose difficult decisions regarding if, how, and when physical therapy services will be provided. Physical therapists must have a strong role in the control of these decisions. Currently, 80% of all physical therapists function as salaried employees, a position of limited control regarding practice policy, economic rewards, and economic risks. The time has long passed for physical therapists to be partners, or corporate owners, or in other professional arrangements that place them in a position of strength with respect to the determination of the scope and quality of physical therapy services in both physical therapy and non-physical therapy-owned practice environments. This change will be dramatic, calling for the planning process to be extensive and comprehensive. We will certainly encounter conflict resulting from tradition, reimbursement policy, the need for control, lack of initiative, desire to take risks by physical therapists, and the desire of others to profit from our profession. The business aspect of physical therapy, the process by which a client is charged for services rendered, is an area that has failed to be modified as concepts of health care and wellness services have expanded. Within this area, a primary question is whether physical therapy is a business or a profession—in reality, I believe it is both. State physical therapy practice acts, designed to protect the public, define the scope of physical therapy and the qualifications of individuals practicing in the field. The way, however, however, do these acts distinguish the professional nature of the physical therapist. Our society, on the other hand, recognizes physical therapists as professionals as a result of the unique body of knowledge and skill they possess, although the current reimbursement system has not been modified to reflect this view. As the business of health care has expanded, physical therapy has continued to be considered a technical service, with no recognition for the professional aspects of the service. The various "la carte" fee schedules utilized throughout practice, with their strong orientation to the technical aspects of physical therapy service, only serve to legitimize this view. Although few schedules,

as we know them today, are likely to be obsolete and will be modified in future reimbursement plans, present concepts will be inherent in any new system. With this in mind, I urge the Association to move with speed to endorse and implement a system whereby the physical therapist is reimbursed based on a professional component for services rendered and the cost relating to the technical aspects of delivering physical therapy care is billed as a secondary or technical charge. The development of such a concept and practice would enable the health care delivery system to control present abuses of the physical therapy reimbursement programs and to protect the American public from the delivery of unskilled care.

Our society and the profession of physical therapy have experienced dramatic change in the past 70 years. In this process, both have been faced with difficult choices to be made, and, as Nancy Wams has stated, "[C]hoice is a privilege, not a burden." Leaders at all levels of the Association have struggled with issues and have formulated sound decisions. The choices in the next decade will be more difficult as the resources supporting change become increasingly limited. It is my hope, however, that—following tradition—those who are ensuring practice will recognize and cherish the important social value in your work and also be driven by the desire to contribute to the advancing body of knowledge in physical therapy.

I believe this belief will follow in many and varied ways, and it would be my wish for you that you gain greater satisfaction from knowing you have served others. Your destiny is in your hands, the profession's destiny is in our hands—all of us. Let us learn from the past as we dream for the future, and success cannot help but follow.

I thank you for the privilege of serving the Association. I have had wonderful experiences in this profession, so much greater than if I had traveled the road alone.

References