5-1-1998

Defining the Roles of Physical and Occupational Therapists in the Health-Care Environment Today

Sandi Jo Haile
Western Kentucky University

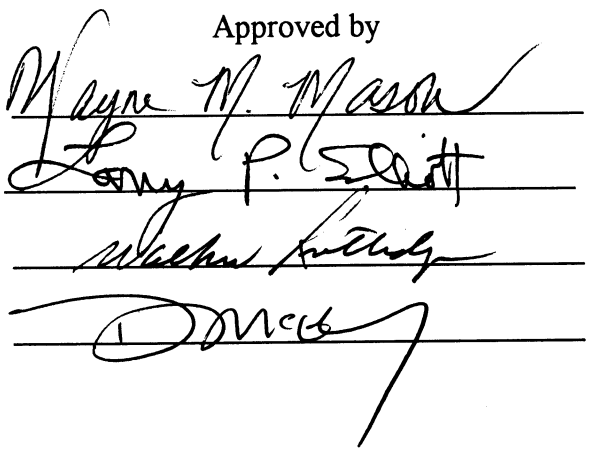
Defining the Roles of Physical and Occupational Therapists in the Health-Care Environment Today

Sandi Jo Haile

Senior Honors Thesis

Spring 1998

Approved by



ACKNOWLEDGMENT

I wish to give a special thanks to Mr. Mark Wiegand, PT, Mrs. Toni Sibilach, PT, and Mr. Ronnie Byrum, OT--practicing physical and occupational therapists who contributed their time and expertise to the development of this thesis. Their professional insight was a valuable asset to my project. I would also like to thank Mr. Walker Rutledge, Western Kentucky University Honors Program Thesis Coordinator. He repeatedly assisted in critiquing manuscript drafts of my thesis. Finally, I am indebted to Mr. Wayne Mason, Western Kentucky University instructor and thesis director. He has helped immeasurably in the professional realm, but has also acted as a motivator, supporter, and counselor. He has truly been my inspiration.

TABLE OF CONTENTS

Introduction....1

Historical Beginnings of Physical Therapy....1

Historical Beginnings of Occupational Therapy....5

Emergence of Distinct Disciplines....8

Defining the Profession of Physical Therapy....9

Defining the Profession of Occupational Therapy....13

Controversy: Distortions of Professional Boundaries....16

Educational Training....19

Growth and Future Outlook....22

Appendix I: Physical and Occupational Therapy Treatment Regimens
- Spinal Cord Injury....28
- Dementia....30
- Stroke....32

Appendix II: Example Evaluation and Assessment Forms....35

Works Cited....39

Introduction

The concept of rehabilitation is not new or unique. In fact, forms of rehabilitation originated as early as prehistoric times. And yet, for most of mankind's history, rehabilitation has been viewed simply as an adjunct to medicine, not as an integral part of health care. Over the past fifteen to twenty years, this trend has been reversed. There has been an enormous expansion in the number of rehabilitation departments, each of which has developed a multi-specialty and multi-disciplinary approach to health care. Physical and occupational therapy are two of the many integral parts established within this system. Although both of these professions grew out of similar backgrounds, they eventually developed as separate and distinct disciplines after the World Wars. In recent years, however, the medical model of rehabilitation has been shifting to a shared leadership concept, whereby a team of professionals work together to achieve "total rehabilitation" for the patient. Each member is specialized in a different area, but they all strive for this ultimate goal. Because of their often overlapping goals, patient interventions, and treatment regimens, the perimeters of each profession are somewhat blurred. In essence, the professional boundaries that have traditionally separated occupational and physical therapists have become distorted.

Historical Beginnings of Physical Therapy

Physical medicine, or physical therapy as it is known today, is one of the oldest fields of medical practice. For thousands of years, physical agents have been used in the treatment of disease and disabilities. According to Robert Shestack, author of The Handbook of P.T., the origins of rehabilitation date back as far as primitive man who practiced heliotherapy with the utilization of the sun's warmth, as well as the first man who introduced massage with the rubbing

of a contused muscle (Shestack 3). Helen Willard and Clare Spackman have found evidence that the Chinese used physical agents as early as 2600 B.C. Believing that inorganic activity caused disease and sickness, the Chinese applied physical training as a promotion of health and wellness (Willard 3-4). Other ancient forms of rehabilitation were performed by "physicians" of prehistoric times. As outlandish as it may sound, they employed electrotherapy in the form of shocks from electrified torpedo fish in the treatment of certain diseases. Hydrotherapy and corrective exercise were physical agents commonly practiced by the prehistoric Romans and Greeks, respectively (Shestack 3).

Modern physical therapy began during World War I when our nation desperately needed health-care professionals to rehabilitate the wounded (Shestack 3). It was in this environment that a universal recognition of the value of physical therapy was acknowledged. Major General William C. Gorgas was the Surgeon General of the United States Army when the U.S. declared war on Germany in 1917. At this time, no formal reconstruction program existed in the country. Such programs did, however, exist in some European countries. Recognizing the vitality of similar programs in the American forces, the Surgeon General assigned a group of physicians to study and report to him on the organization of these rehabilitation programs (APTA, The Beginnings, 3-7). As a result of these reports, the Division of Special Hospitals and Physical Reconstruction was established in the Surgeon General's office on August 22, 1917. This establishment employed 2,000 "reconstruction aides," commonly recognized today as physical therapists (APTA, Historical Perspective). Among the persons assigned responsibility for the organization, development, and supervision of the program for reconstruction aides were Frank Granger, M.D., Elliott Brackett, M.D., Joel Goldthwait, M.D., and Miss Marguerite Sanderson.

Then in 1918, Miss Mary McMillan was assigned by the Surgeon General to the reconstruction aide program (APTA, The Beginnings, 3-7). Practicing in army hospitals, and later in veterans' hospitals, these reconstruction aides helped to restore those who were wounded in battle, and individuals with injuries that might have eventually led to death were being saved (APTA, Historical Perspective).

In 1921, still under the leadership of Mary McMillan, the reconstruction aides of the war years formed their first professional organization, the American Women's Physiotherapeutic Association (APTA, The Beginnings, 3-7). Then in 1922, the organization changed its name to the American Physiotherapy Association. The American Physiotherapy Association was established to improve physical therapy services, education, and research (APTA, Healing the Generations, 248). The initial enrollment of this organization consisted of 274 charter members. By the end of the 1930s, men were admitted to the organization, and membership grew to just under 1,000. Not long afterwards, specifically with the advent of World War II, physical therapy experienced increasing acceptance as an integral part of medicine (APTA, Historical Perspective). In essence, the 1940s were important years for physical therapy. According to Dr. Mark Wiegand, professor and practicing physical therapist at the University of Louisville, World War II introduced artillery with significantly more power, which in turn resulted in more serious wounds. The battle-wound severity and an occurring nationwide polio epidemic brought the attention of the public to the necessity for physical therapy (Wiegand, Interview). This demand alone expanded the APTA's membership to 8,000. With this membership expansion, an increase in the number of physical therapy education programs across the United States was also observed (APTA, Historical Perspective). In 1946, the American Physiotherapy Association once again

seized the opportunity to change its name to the American Physical Therapy Association (APTA) (APTA, Healing the Generations, 248). The Association hired a full-time staff and opened its first office in New York City, according to Howard Rusk, M.D., author of Rehabilitation Medicine. The Rehabilitation Medicine Service was created within Bellevue Hospital and was the first rehabilitation medicine service of any civilian hospital in the United States, and probably in the world. Similar services developed relatively slowly in hospitals during the decade following the creation of the Bellevue Hospital program. There was a more rapid growth, however, of independent, nonprofit rehabilitation centers which were limited to the care of orthopedically handicapped children. Such institutions provided valuable and needed patient-care services within the community. In addition, they greatly contributed to the recognition of the need and value of rehabilitation services by the medical profession, the public, and the hospitals. Subsequently, a trend began whereby these services in general hospitals were expanded. This growth gave more recognition to the fact that within the general hospitals such services could be brought to the patient at the earliest possible time, thereby alleviating or minimizing the continued deterioration of many disabled individuals (Rusk 1-2).

The acknowledgment of this early treatment idea stirred state and federal governments. The United States had provided a state-federal program of vocational rehabilitation since 1920, although it wasn't until 1940 that this program was made permanent and eventually expanded to include physical restoration services. Then in 1954, a revolution took place when rehabilitation training and research were added to the program. According to Nell Carney, Commissioner of Rehabilitation Services Administration, professionals could now be trained under federally supported university programs. Researchers were able to conduct vital experiments which would

usher in a new era of physical therapy, improving treatment regimens and providing quality services and aid to disabled Americans. As the quality of services rose, opportunities expanded, and the field of rehabilitation was elevated to a level of professionalism. For a period of time, state and federal programs continued to expand. In 1973, a Rehabilitation Act was established which brought about sound, basic principles to rehabilitation. Rehabilitation personnel became more professional in their training, disabled people became more knowledgeable and independent, and Congress became more attendant and sensitive to patient needs (Carney 6). In short, the Rehabilitation Act proved to be the cornerstone for changing the course of rehabilitation in America. Physical therapy was no longer a pioneer field. From this point onward, rehabilitation in the United States became an integral part of the health-care establishment.

Historical Beginnings of Occupational Therapy

The development of physical therapy as a profession was paralleled by that of another branch of rehabilitation known as occupational therapy. The term "occupation" has been recognized as a source of pleasure and a promotion of health since ancient times. Play, games, and pastimes were recognized as a part of life, as evidenced by toys, drawings, and sculptures found in excavations of ancient Egypt, Babylonia, and China. The writings of the Hebrews even acknowledged the beneficial effects of work on the body and mind (Willard 3-4).

In the United States, Adolf Meyer played a significant role in the genesis of the occupational therapy profession. As a psychiatrist, he learned that occupational activity appeared to serve a fundamental role in the effective treatment of the neuropsychiatric patient. In December 1892, he asserted that providing patients with opportunities to be active participants in an occupation might be more beneficial than prescribing medicine. Meyer's principles and

foresight regarding occupational therapy had a marked impact on the philosophy and history of the profession (Willard 6). In essence, he provided the definition of occupational therapy upon which the profession could be built.

During the nineteenth century, occupation was utilized primarily in the care of mentally ill patients. It was during this time that nurse Susan E. Tracey--often referred to as the first occupational therapist--saw occupation as an important adjunct to drug treatment. After many years of working with mentally ill patients, Tracey became director of the Training School for Nurses at the Adams Nervine Asylum in Boston. There in 1906, she developed the first systemic training course in occupation to prepare instructors for teaching patient activities. Then in 1910, she published the first book on occupations, Studies in Invalid Occupations--A Manual for Nurse and Attendants, which provided guidelines for the use of activities with patients. Tracey encouraged the use of occupation for treatment. Through her training courses, she did much to disseminate knowledge in regard to the use of occupation for treatment of both physically and mentally ill patients (Willard 6-7).

Another influential contributor to the profession's development was Eleanor Clarke Slagle. Around 1911 she was appointed director of the occupational therapy department at Johns Hopkins Hospital in Baltimore, where she conducted classes for two years. Then in 1915, she organized the first professional school for occupational therapists: the Henry B. Flavill School of Occupations in Chicago. This school served as the model from which other schools for occupational therapists were derived (Willard 7-8).

Although numerous individuals made significant contributions to the profession, it was William Rush Dunton, Jr. whose influence was significant enough to earn him the title "father of

occupational therapy." For many years he was involved in the use of occupational therapy as treatment for mental patients. In 1915, Dunton published the first complete textbook on occupational therapy, entitled Occupational Therapy--A Manual for Nurses. Throughout his textbook he expressed his philosophy that occupation's primary purpose was "to divert the patient's attention from unpleasant subjects, to keep the patient's train of thought in more healthy channels, to control attention, to secure rest, to train in mental processes by educating hands, eyes, and muscles" (Willard 8-9). The simple activities he explained in his book could easily be used and adapted to the treatment of any patient (Willard 8-9). Modifications of these activities still exist today.

Despite the increased use of "occupations" in treating patients, the term "occupational therapy" did not exist as part of the rehabilitation language. George Edward Barton, an architect, is credited with coining the term "occupational therapy" in 1914. He became an advocate of this treatment after his personal infliction with insanity. During his illness, he experienced the beneficial effects of directed occupation. He defined occupational therapy as "the science of instructing and encouraging the sick in such labors as will involve those energies and activities producing a beneficial therapeutic effect" (Willard 9).

Under the leadership of Barton, Tracey, Slagle, and Dunton, the National Society for the Promotion of Occupational Therapy was formed in 1917. This organization is recognized as the oldest allied health professional society in America. It was founded to represent the interests and concerns of occupational therapy practitioners as they attempt to improve the quality of treatment (AOTA, "memb.html"). During this time, broadly defined programs were established in military hospitals as well, although the application of occupational therapy as a specific treatment for all

types of patients has only been accepted since 1918 (Willard 3). Little growth within the civilian hospitals prevailed because of a lack of money, personnel, and an understanding of the value of occupational therapy as a medical adjunct of medicine. Still, the membership in the professional organization continued to rise. In 1923, its name was changed to its present title, the American Occupational Therapy Association.

World War II did much to crystallize concepts within the profession of occupational therapy. The war had expanded the techniques and knowledge in occupational therapy, especially in the treatment of the physically disabled. The increasing acceptance of rehabilitation as a medical responsibility resulted in the establishment of occupational therapy programs in many countries. In addition, the population of patients to be treated also changed and increased. No longer were patients solely suffering from battle wounds but were victims of a variety of disabilities. With new demands placed upon them, occupational therapists became specialized in the restoration of patients' maximum level of independence in relationship to their living, work, and family needs (Willard 10-13).

Emergence of Distinct Disciplines

Approximately 265,000 American men were permanently disabled as a result of combat injuries sustained during each World War (Shestack 5). Their need for rehabilitation services aided in the emergence of physical and occupational therapy as two distinct disciplines. In essence, the World Wars provided the support from which each rehabilitation profession would be derived. Advancements soon began to be evidenced in both physical and occupational therapy as a result from research, education, and technological innovations (Wiegand, Interview). Research development led to therapeutic advancements which introduced treatment of more disabling

conditions. For instance, biomechanical engineers began to devise new types of braces and artificial limbs for both upper and lower extremities (Krumhansl 23). Along with education and technological innovations came the expansion of modalities including the use of lasers and electrical stimulators. These therapeutic devices were designed to manipulate the nervous system to block pain receptors, to stimulate muscle contractions, and to reduce areas of muscle tightness and swelling (Wiegand, Interview). Several research centers also initiated experiments to test computerized equipment to enable paralyzed patients to become partially independent (Krumhansl 24). Computer programs have been introduced to help patients improve decision making, abstract reasoning, problem solving, perceptual skills, memory, sequencing, and coordination. Research centers have also been testing computer-aided equipment which would permit individuals with severe limitations to communicate, operate telephones and television sets, and control other aspects of their environment (Evans, "080.html"). Each of these therapeutic advancements have allowed therapists to teach their patients skills and operations that are vital for independent living. As these new strides were introduced to the medical field, the philosophies behind the practice of physical and occupational therapy were employed (Wiegand, Interview). What follows is an examination of the principles and practices of each rehabilitation discipline.

Defining the Profession of Physical Therapy

A construction worker with an injured back...a senior citizen with arthritis...an infant with a birth defect...an Olympic athlete...a person who has suffered a stroke...a child with a disability...a pregnant woman...an over-stressed business executive...

A very diverse group of people, yet all can benefit in some way from physical therapy. According to the American Physical Therapy Association, physical therapy is a dynamic and ever-

changing field. Through the years, the hands-on profession has become equipped to meet the needs of people from all walks of life. The APTA views the profession as one that is involved with restoring function and independence at all levels (APTA, "whatispt.html"). It defines five basic goals of the profession:

1) to relieve pain and discomfort
2) to regain movement and promote healing
3) to restore function to the injured body part
4) to rebuild confidence and motivate patients to work toward recovery
5) to help people adapt to any permanent physical changes
(APTA, About Physical Therapy, 2)

A newer and more encompassing definition was later given by Ms. Thelma Holmes, associate professor in the physical therapy curriculum of the University of Florida. She defined physical therapy as "an art and science which contributes to the promotion of health and prevention of disease through an understanding of body movement" (Krumhansl 2). In essence, physical therapy can help individuals lead more active, independent lives (APTA, About Physical Therapy, 2). Physical therapy is a form of health care that prevents, identifies, corrects, and alleviates acute or prolonged musculoskeletal or neurological dysfunction. It is a health-care profession in which practitioners evaluate, treat, and instruct individuals to prevent or overcome the effects of disease and injury (Carr, "pt.html"). The central objectives of physical therapy are dependent upon the specific condition being treated. However, the general objectives are stated in terms of increasing or restoring the ability of the patient's body, or any of its parts, to perform normal functional activities. According to Shestack (4), physical therapy's more specific objectives include:

1) increasing and maintaining strength and endurance
2) increasing range of motion in joints
3) increasing coordination
4) decreasing pain

5) decreasing muscle spasm and spasticity
6) decreasing swelling
7) decreasing chest congestion
8) promoting the healing of soft tissue lesions
9) preventing contractures and deformities
10) decreasing abnormal sensory feedback
11) correcting postural deviations
12) decreasing gait deviations
13) promoting independence in ambulation
14) promoting independence in elevation activities
15) promoting independence in transfer activities
16) teaching patients and/or families how to correctly carry out physical therapy procedures in the patient's home.

Typically, physical therapists evaluate and assess joint motion, muscle strength and endurance, heart and lungs function, and performance of movements required for daily living. From such an assessment emerges the patient's treatment plan (APTA, The Physical Therapist). This plan, which may be based on a physician's orders, describes the treatment strategy, its purpose, and the anticipated outcome (Evans, "080.html"). Physical therapists work with other valuable members of the health-care team, such as physicians, dentists, podiatrists, occupational therapists, nurses, speech and hearing professionals, psychologists, and social workers, in order to develop an effective multi-dimensional plan of treatment (Krusen 5). After devising a treatment strategy, physical therapists often delegate specific procedures to physical therapy assistants and aides (Evans, "080.html").

As therapeutic medicine has developed into a more sophisticated profession, various physical therapy modalities and procedures are now employed to treat patients. These encompass items as basic as therapeutic exercise, to more complex procedures such as the manipulation of iontophoresis. Treatment often includes exercise for patients who have been immobilized and lack flexibility. Using a technique known as passive exercise, therapists increase the patients'

flexibility by stretching and manipulating stiff joints and unused muscles. Later in the treatment, therapists encourage patients to use their own muscles to further increase flexibility and range of motion. Eventually patients are advanced to weights and exercises that improve strength, balance and coordination, and endurance. Physical therapists also use electrical stimulation, hot and cold compresses, and ultrasound to relieve pain, improve the condition of muscles of related tissues, and to reduce swelling. They may also use traction or deep tissue massage to relieve pain and restore function. Another therapeutic modality is the application of whirlpool air jets to stimulate circulation, heat superficial tissues, and debreed necrotic tissue of burns or post-surgical incisions. On a more complex level is the use of the device called iontophoresis, whereby electrical impulses introduce anti-inflammatory medication through the skin into an inflamed area (Carr, "pt.html"). The treatment mechanisms devised by physical therapists depend on the abilities and needs of the patients. As treatment continues, therapy may be modified as physical therapists document progress (Evans, "080.html").

Although many physical therapists practice in hospitals, more than seventy percent are employed in private physical-therapy offices, community / industrial health centers, sports facilities, rehabilitation centers, nursing homes, home health agencies, schools, or pediatric centers (APTA, The Physical Therapist). Some physical therapists treat a broad spectrum of ailments; others specialize in areas such as pediatrics, geriatrics, orthopedics, sports medicine, neurology, and cardiopulmonary physical therapy (Evans, "080.html"). The settings, employment arrangements, career responsibilities, and career opportunities depend on the interests and skills of each practitioner.

Through its years of development, physical therapy has long been recognized as the "cornerstone of rehabilitation" because the road back from injury or disease often begins with physical-therapy treatments to relieve pain and restore function (Krumhansl 2). According to Toni Sibilach, a practicing physical therapist, "physical therapy is a growing profession offering a lifetime of satisfaction in helping people function more effectively. Each patient presents a new challenge, and the constantly changing clinical situations provide for a stimulating and exciting career" (Sibilach, Interview).

Defining the Profession of Occupational Therapy

Humans are active beings whose development is influenced by the use of purposeful activity (Willard 27). The general consensus among practitioners in health care is that occupation during the restorative process can greatly enhance the patient's return to a maximum level of physical, emotional, and social functioning (Wilkinson 6). This belief that purposeful activity may be used to prevent and mediate dysfunction provides the basis for the practice of occupational therapy (Willard 27). Occupational therapy is defined as "the art and science of directing man's participation in selected tasks to restore, reinforce, and enhance performance, facilitate learning of those skills and functions essential for adaptation and productivity, diminish or correct pathology, and to promote and maintain health" (Willard 27). It is a vital health-care service with practitioners who help to restore and sustain the highest quality of productive life (AOTA, "memb.html"). Throughout its history, the focus of the profession has been on the nature of the individual in relation to society and the world in which the person lives. The focus can be summarized in at least four common propositions that have characterized the profession since its beginning:

1) The use of occupation or purposeful activity can influence the state of health of an individual.
2) Individuals and their adaptation and total functioning must be viewed with respect to their own environment, and remediation must take into consideration all the physical, psychological, and social factors.
3) Interpersonal relationships are an important factor in the occupational therapy process.
4) Occupational therapy is an adjunct to, and has its roots in, medicine and must work in cooperation with medical professionals and other persons involved as health-care providers to ensure maximum benefits for clients.
(Willard 20)

The occupational therapy profession is committed to the uniqueness of the individual and fosters the growth and development of each person. The profession seeks to gradually increase occupation--as rapidly as the patient's strength permits--to normal levels of activity at the earliest time possible (Willard 28). Most authorities recognize the following objectives of occupational therapy (Rusk 101-102, 116; Evans, "078.html"; AOTA, OT in Mental Health):

1) improving upper body muscle strength and control
2) increasing / maintaining range of motion of impaired limbs
3) improving hand dexterity
4) increasing work tolerance and endurance
5) training and improving communication skills, work habits, and work endurance
6) improving intellectual potential for returning to his or her former job
7) providing opportunity for work adjustment to regain diminished skills, work habits, and work endurance
8) increasing ability to complete activities of daily living such as bathing, dressing, cooking, and eating
9) increasing skills in community living, such as use of public transportation, to improve self-efficiency
10) increasing recognition of stress indicators and developing coping skills

The occupational therapist typically assesses the patient's needs in order to develop a rehabilitation treatment plan. If this purpose is to be accomplished, the therapist must approach each situation as an opportunity to find meaningful solutions to the problems that a patient faces (Willard 89). Once the treatment goals have been established, the therapist can then select the

activity or series of activities that is best suited for achieving these objectives (Wilkinson 10). The overall effectiveness of the therapy relies heavily on the practitioner's ability to select the appropriate activity and adapt the activity to meet the predetermined treatment goals (Wilkinson 7). Like the physical therapist, the occupational therapist works in conjunction with other team members to find the appropriate activity which will return the patient to the greatest possible independence (Willard 8).

Occupational therapists provide services to patients of all ages who have physical, developmental, emotional, and social deficits. Because of these conditions, such individuals need specialized assistance in learning skills to enable them to lead independent, productive lives (AOTA, OT Services). Occupational therapists may work exclusively with individuals in a particular age group or with particular disabilities (Evans, "078.html").

Prior to 1975, the vast majority of occupational therapists were employed in hospitals or rehabilitation centers. But the Individuals with Disabilities Education Act, enacted in 1975, requires school districts to provide occupational therapy and other related services for children who need these services in order to benefit from their special education program (AOTA, OT in School). As a result, recent years have witnessed a significant increase in the number of occupational therapists employed by school systems. In fact, school systems have become the second largest employer of occupational therapists (Evans, "078.html"). Regardless of the setting, however, therapists employ various therapeutic procedures and modalities, the implementation of which depends on the needs and limitations of the individual patients. Many of these treatment regimens overlap those of physical therapy, including massages, iontophoreses, hot and cold packs, electrical stimulations, and whirlpools. In addition, occupational therapists

provide splints and simple functional tasks to increase patients' range of motion, strength, endurance, and comfort (Carr, "ot.html").

In the eyes of medical professions and the public, these activities of daily living have become a source of controversy for practicing occupational therapists. These groups are skeptical of the benefits which occupational therapists recognize as therapeutic activity. An unfavorable stigma plagues those using artistic or craft media, because to skeptics, such activity appears to be something less than professional treatment and no more than merely fun-and-games. Therapists utilizing such media must accept these attitudes and be prepared to offer logical explanations for the necessity of such programs in health-care environments. Occupational therapists should understand the dynamics behind the activity and be capable of relating the goals, objectives, and purposes underlying programs to others (Wilkinson 8).

The use of occupation as a therapeutic method is the essence of the profession of occupational therapy. The uniqueness of the profession is that it has been the common core of otherwise different approaches to intervention. The common factor is the synthesis of occupational forms designed to elicit meaningful and purposeful occupational performance. Occupational therapy is definitely one profession that will flourish in years to come. This is because occupation is so basic to human health and yet so flexible, depending on the needs of the individual human being (Nelson 11).

Controversy: Distortions of Professional Boundaries

For many years, the medical model of rehabilitation has been shifting to a shared leadership concept, an adjustment transition that has been difficult for many team members. This is because the allied-health professionals have all received their education and training in relative

isolation from each other. It will take a great cooperative effort to balance the leadership in the health-care team of the future. Theoretically, team members must unite to develop a comprehensive program which helps to maximize a patient's remaining abilities. Each team associate should take as his or her responsibility to "not only add years to life, but also to add life to years" (Krusen 5).

Two valuable members of this health-care team of professionals are physical and occupational therapists. In regard to treatment and purpose, these therapists are the two closest related members of the health-care team. Although trained with different specialties, they both strive for a similar ultimate goal: to contribute to the restoration of the patient's maximum physical function (Willard 8). To gain a more thorough understanding of the specific treatments provided by occupational and physical therapists, one may elaborate upon a scenario borrowed from Irene R. McEwen's Occupational and Physical Therapy in Educational Environments: Douglas, an 8-year-old boy, was diagnosed with cerebral palsy at 4 months of age. He received numerous services as part of an early intervention program. Douglas is currently in the second grade at a local elementary school. He ambulates independently despite several observable gait deviations, and he tires more rapidly than his typically developing peers. He also has difficulty performing some of the more complex activities on the playground. As a result of limited use of his left arm, Douglas requires modifications for many of the projects in art class (McEwen 6). According to Taylor's Manual of Physical Evaluation and Treatment, cerebral palsy is "a paralysis or lack of muscle control as a result or injury to an immature nervous system...sometimes accompanied by seizures and mental retardation" (Taylor 99). Douglas, unlike a vast majority of cerebral palsied individuals, suffers only from a mild case of this condition. He still remains

capable of independent ambulation thanks to early therapeutic intervention, and doesn't suffer from seizures or mental retardation (McEwen 6).

Taking McEwen's case study of Douglas, physical and occupational therapists would still recognize areas that need to be further treated. More specifically, physical therapists would be concerned with restoring strength and motor function in his left arm, while trying to decrease muscle tone. They would also focus on decreasing Douglas' gait deviations. Physical therapists might also employ therapeutic exercises for strengthening Douglas' cardiopulmonary status--his overall endurance (Shestack 4). Occupational therapists would work to strengthen fine motor movement such as gripping and using the fingers to manipulate items such as pencils or other art supplies. They might also provide writing splints or adaptive equipment (i.e. access to keyboarding and mouse control) to ease Douglas' difficulty in the implementation and completion of school projects (AOTA, "what.html"). In essence, physical and occupational therapists would strive to restore the function of Douglas' limited limb; yet, they would target different areas where therapeutic methods could be applied. (Consult Appendix I for other scenarios in which physical and occupational therapists intervene with rehabilitation techniques.)

Physical and occupational therapists work together to achieve restoration and independence for each patient. However, this close working relationship often leads to a distortion of the professional boundaries between the two disciplines. During an interview, Dr. Wiegand used a similar example to define what he considered the professional boundaries of physical and occupational therapists. He commented, "Typically, occupational therapists work with specific tasks and performance outcomes, whereas physical therapists work with gross motor function and whole body movement" (Wiegand, Interview). Indeed, each therapist's work often

supplements or complements that of the other in the treatment of an individual patient. This is why personnel from these fields must work together closely and must have a mutual understanding of the goals and treatment methods employed by each. However, the ideas involved with this newly adopted "team approach" introduce a controversy between physical and occupational therapists which is still debated today (Willard 8). In essence, a clear distinction between their limits of practice is somewhat blurred. Some researchers believe that an interdisciplinary education involving both physical and occupational therapy students would solve this dilemma. In "Interdisciplinary Education Modulates Physical and Occupational Therapy Students' Negative Professional Stereotypes," Katz and his colleagues concluded that this type of educational setting would foster positive professional attitudes among students, as well as give them a better understanding of their professional boundaries in relation to their sister profession. They strongly believed that this might have an impact on the future working relationship of the two professions and ultimately on patient care (Katz S60). The professions are two separate disciplines with two different specialities, regardless of the similarities in their historical background (Sibilach and Wiegand, Interview). However, without distinguishing between the two, it would be very difficult for an outsider to mark the demarcation line between physical and occupational therapists.

Educational Training

Since physical therapy is a specialty within the field of medicine, it follows that those who become therapists must meet certain educational requirements (Shestack 4). According to the American Physical Therapy Association, there were 145 accredited and 39 developing professional physical therapist programs in the United States as of June 1995. Two types of

programs provided educational preparation for entry into physical therapy: baccalaureate degree programs and entry-level master's degree programs. Of the accredited programs, 65 offered bachelor's degrees and 80 were master's degree programs. While a bachelor's degree is still the minimum educational requirement for entry into the profession, some experts feel an expanded curriculum has become necessary to teach the rapidly growing body of knowledge. As a result, most schools are changing their baccalaureate program to a master's degree level (Evans, "080.html"). Indeed, this has been the trend observed throughout the United States. According to Dr. Wiegand, the reasons behind this trend are two-fold. First, the scope of the physical therapy practice has expanded. For instance, the therapists do not have to operate under a physician's orders in 40 states. Speaking from the standpoint of a practicing physical therapist, Dr. Wiegand also believes that more responsibility is placed upon the therapists. They now have to make a differential diagnosis of the problem, as well as assess if that problem can be handled by a physical therapist. If not, it is the therapist's responsibility to refer the patient to another physician. These responsibilities introduce an expansion of material and techniques that must be taught to students. Much of what is being taught in the program is master's work anyway. "This is a way of rewarding students with the appropriate diploma for their work," commented Dr. Wiegand (Wiegand, Interview).

Regardless of the degree received upon graduation, the basic educational requirements are the same. The curriculum typically starts with science courses such as biology, chemistry, and physics, and then introduces specialized courses such as biomechanics, neuroanatomy, human growth and development, manifestations of disease and trauma, evaluation and assessment techniques, and research and therapeutic procedures. Besides classroom and laboratory

instruction, students receive supervised clinical experience in hospitals. Upon completion of these courses, all states require physical therapists to pass a licensure exam after graduating from an accredited program before they can practice. After passing the licensure exam, physical therapists are required to continue to develop professionally by participating in continuing education courses and workshops from time to time. A number of states require continuing education for maintenance of licensure (Evans, "080.html"). However, this is not mandated by a great majority of states (Wiegand, Interview).

Much like those studying physical therapy, students interested in the profession of occupational therapy must complete certain educational requirements as well. To become occupational therapists, candidates may complete either a bachelor's degree program, a post-baccalaureate certificate program (for students with a degree other than occupational therapy), or an entry-level master's degree program (AOTA, Careers in OT). These educational programs are accredited jointly by the American Medical Association and the American Occupational Therapy Association (AOTA, OT Services). In 1994, entry-level education was offered in 69 bachelor's degree programs, 9 post-bachelor's certificate programs, and 19 entry-level master's degree programs. Students working toward one of these degrees must first complete course work in physical, biological, and behavioral sciences, and the application of occupational therapy theory and skills. Then, the last 6 months of their study are spent in a clinical internship under the supervision of registered occupational therapists (Evans, "078.html"). Upon completion of these educational requirements, the students must pass a national certification examination given by the American Occupational Therapy Certification Board (Carr, "ot.html"). Those who pass the test are awarded the title of "registered occupational therapist." After receiving this certification,

occupational therapists are urged to attend continuing education classes when offered. But as with the physical therapists, this is not mandated in many states.

The salaries of licensed physical therapists and registered occupational therapists have seen an increase in recent years. As of 1994, the annual salaries of physical therapists working full time ranged from an average minimum of $35,074 to a maximum of $51,950 (Evans, "080.html"). Annual salaries of occupational therapists working full time ranged from an average minimum of $33,728 to a maximum of $49,392 (Evans, "078.html"). The salaries were typically based on shift and area differentials, as well as whether the therapists were practicing in a rural county. Therapists in rural counties tend to find themselves among the higher paid, along with those working in the area of home health. The 1994 statistics stated above demonstrate a slight difference in the salaries between physical and occupational therapists. But Ronnie Byrum, practicing occupational therapist, clarified that "today salaries between occupational and physical therapists are typically the same, but strictly depend on the facility in which the therapists work" (Byrum, Interview). Byrum is employed at a long-term care facility and contended that he and the physical therapist make the same annual salary. Byrum stated, "Through the years, the profession of occupational therapy has become more recognized as an important part of rehabilitation; maybe that is why the salaries of occupational therapists have become comparable to those of physical therapists" (Byrum, Interview).

Growth and Future Outlook

Since the genesis of physical and occupational therapy as integral adjuncts of medicine, they have experienced a revolutionary growth. In fact, according to the U.S. Bureau of Labor Statistics, physical and occupational therapy are among the fastest growing health professions in

the nation (AOTA, "memb.html"). However, the past enrollment in educational programs has not met the projected personnel needs (AOTA, Careers in OT), and employment opportunities have continued to expand in response to this rapidly growing need for rehab services. Many factors have contributed to the increasing demand for therapeutic services, some of which have been generated by the changing makeup of the population. For instance, as the baby-boom generation ages and the risk of heart disease and stroke increases, the need for cardiac rehabilitation programs has risen (APTA, "future.html"). However, the aged and aging are not the only contributing group to increase the demand for therapists. More young individuals are also realizing the vitality of therapy to their lives. In the United States, approximately ten percent of all children have a physical or mental disability, and nearly twenty-two million children under five years of age have a chronic problem. The March of Dimes estimates that each year two hundred thousand children are born with seventeen thousand different kinds of physical defects (Krumhansl 6). Children with severe birth defects, for example, as well as car accident victims, are finding assistance from therapists to restore their ability to perform normal functional activities of living. Additional therapists are also becoming vital in order to help disabled children prepare to enter special education programs, as required by recent federal legislation. The maturing of sports medicine and widespread interest in health and wellness have also created a need for physical and occupational therapists. Therapists are likewise needed within the industrial field to develop exercise programs and teach safe work habits (Evans, "080.html).

Growth within the allied-health professions is evident and will continue simultaneously with further technological and medical advancements. With these new strides, doctors are beginning to demonstrate a growing respect for these high-tech advances in the weapons of a

therapist's arsenal. Only a few years ago, part of this arsenal consisted of weights to attach to a patient's ankle in order to test his or her strength after a knee injury. Today, therapists use computers to read muscle strength and movement more precisely. Also, the new technology which made arthritic hip and knee replacements possible has also created extra demand for therapists within the rehabilitation services (Saltzman 1). As newer diagnostics, equipment, and treatment methods are developed, the number of people requiring rehabilitation will continue to increase.

As occupational and physical therapy continue to flourish, their effects and resultant employee opportunities will be greatly affected by the current promotion of managed care. Managed care is a delivery system design that controls cost and access to health-care services. The objectives and strategies of this United States system have changed significantly over the past two decades. The new policy views of managed care are designed to

> 1) increase efforts to control cost; target hospital inpatient and physician services.
> 2) increase efforts to include outpatient services as a target for cost control.
> 3) increase use of selective pricing and control access and volume of health-care services.
> 4) further efforts by payers to share risk of financing health care with business, labor, and households.
> (Stewart 28)

Nevertheless, the design of the system continues to be based on access and delivery of services through expenditures of resources (Stewart 2). In general, the purpose of a health-care delivery system is to provide services that will maintain an optimal health status for the citizens of a nation. During the 1990s, the design of the health-care delivery system has been mainly on cost containments. In essence, the agenda has been on "value for the dollar invested" (Stewart 24). These cost-containment goals have affected many patients receiving therapeutic services. Clearly,

reimbursement decisions have been based on the value of service provided and demonstrated measure of the outcome achieved. For instance, burn clients with managed care have reported a lack of reimbursement for rehabilitation that results in a less than functional outcome. In order to receive reimbursement for services, therapists must report and document services provided in a manner that truly reflects the functional changes resulting from therapeutic treatment(s). Otherwise, third-party payers typically will not reimburse providers for treatment interventions which are not effective or efficient. The therapist must foster improvement and return the patient to preinjury activities (Fletchall 61).

Regardless of cost, the American public often views health care as a right rather than a privilege. Society expects access to all levels and unlimited amounts of health care, regardless of ability to pay for treatment (Stewart 7). Charles J. Dougherty, author of "Values in rehabilitation: happiness, freedom, and fairness," is on the side of a vast majority of the citizens. According to Dougherty, there should be no barriers to a decent level of care for all Americans. "Health-care professionals ought not be placed in the position of making decisions about basic rehabilitation services on the grounds of the patient's ability to pay" (Dougherty 11). Indeed, professionals would not be confronted with such decisions if so many American consumers had not overused large volumes of services in the past system. Now, health-care costs in the United States are projected to be at $1.5 trillion by the year 2000. Per capita health care costs in the United States are higher than in any other industrialized country in the world (Stewart *ix*). Being confronted with such realities, the health-care industry has decided to limit excessive, unnecessary amounts of health-care services, as well as broaden its scope to promote "total rehabilitation." These new objectives are also designed to encompass the development of rehabilitation programs for persons

who are primarily "socially disadvantaged" or "culturally deprived" (Krusen 11). In many ways managed care has created more scrutiny in how therapy is paid for, and an additional amount of pressure is placed upon the practitioner. However, managed care has allowed for the application of more cost-efficient care for patients--something every patient needs.

Managed care is often recognized as the beginning of a metamorphosis within the physical and occupational therapy professions. It has brought about many changes which have created a sense of unity among the medical professionals. More specifically, it has introduced the newly adopted "team approach" concept which many feel will lead the way in modern methods of medical care. According to Handbook of Physical Medicine and Rehabilitation's Frank H. Krusen, "the representatives of our medical specialty are now in position to make extremely significant contributions toward the provision of increasingly effective medical care of the future" (Krusen 11). As a team, care can be provided more efficiently, more effectively, and completed in shorter lengths of time, whereby costs of health care in America will decrease. No one profession can state truthfully that it alone is responsible for the rehabilitation of the patient. Rather, each must state that it provides certain services, treatment, guidance, or support which contribute to the total result. Medical care is not complete until the patient has been trained to live and work with what he or she has left. This presents new challenges daily, all of which are achieved through team effort. Managed care throughout the United States has brought along a convergence of many health professionals, specifically physical and occupational therapists, to help overcome the challenges presented by each new patient.

Rehabilitation began with a philosophy, became an objective, and developed into a method of coordinating services of several specialities in the allied health fields (Krumhansl 25). But

despite working in a joint effort with other medical professions, the fundamental principles which guide physical and occupational therapy will continue to make these fields unique professions. The Commission on Education in Physical Medicine and Rehabilitation once stated: "The dominant problems that have produced the widespread demand for change throughout the medical community relate directly to needs which rehabilitation medicine is uniquely fitted to fulfill" (Krusen 11). Although recent advances have been evidenced in medical practice, much remains to be done; but today, the resources and technology exist to meet the needs of individuals from all walks of life.

APPENDIX I

Physical and Occupational Therapy Treatment Regimens

The following scenarios represent three medical conditions that occupational and physical therapists frequently encounter. With health care's shift toward shared leadership, these hypothetical case studies are designed to illustrate how physical and occupational therapists work together to achieve total rehabilitation for the same patient.

Spinal Cord Injury

Although uncommon among Americans today, an estimated 250,000 persons in the United States suffer from spinal cord injury. Spinal cord injuries are recognized as some of the most devastating calamities in human life because they can often leave their victims incapacitated, unable to function in society. In fact, until this century such injuries could not be treated. However, with the advent of comprehensive rehabilitation centers in the 1930s, the chances for survival for patients with spinal cord injury improved (Yarkony 3). These centers strove to provide a coordinated system of care to enhance survival, decrease secondary complications, and provide life-long therapeutic treatment. The foundation of a comprehensive rehabilitation program is interdisciplinary, combining a staff's individual disciplines to enhance the success of those being served (Sibilach, Interview).

Collaboration by an interdisciplinary team is the key to successful spinal injury rehabilitation. Physical and occupational therapists are two key players that are vital to the success of the rehabilitation process. In order to gain a better understanding of the roles of both team members, one may assume the following situation: Heather, an 18-year-old girl, is involved in a car accident in which she suffers damage to her spinal cord. Immediately after her accident,

physicians diagnose Heather as a paraplegic. The physical therapist has a significant role in the rehabilitation process, as he or she promotes the resumption of a meaningful life. The physical therapist's role in Heather's situation would primarily be to enhance mobility skills. Basic skills such as balance, sitting, and turning in bed will typically be among the first techniques taught, some of which require assistive devices. As Heather progresses, complex tasks such as wheelchair use, transfers, and gait training will then be introduced. The physical therapist would also be responsible for the elimination and management of any pain Heather experiences. Typically all treatment regimens provided by the physical therapist focus on strengthening muscles and maintaining their flexibility, especially those used in activities for daily living. The therapist would also teach pressure-relief mechanisms. Heather exhibits the absence of sensation below the waist and doesn't know when she should shift her weight. The shifting of weight is essential in order to maintain circulation in her lower extremities (Sibilach, Interview). A physical therapist would also be involved in Heather's respiratory function as well as cardiopulmonary endurance (Yarkony 5).

The occupational therapist has a very important role in Heather's rehabilitation progress as well. The occupational therapist would stress activities of daily living such as grooming, bathing, toileting, dressing, and feeding (Byrum, Interview). The therapist would also employ treatments promoting upper extremity strength. An occupational therapist would focus on independence within her home with duties such as meal preparation, tub and toilet transfers, and responsiveness to emergencies (Sibilach, Interview). Orthotic management for the hands and wrists is often an important component of these activities. Splints or other dynamic devices may be fabricated for Heather to maintain range of motion and to grasp objects more easily. The occupational therapist

may also work in conjunction with the nurse on adaptive techniques for Heather, such as skin inspection, catheterization, or bowel management (Yarkony 5).

The physical and occupational therapists are vital members of the rehabilitation team. They both provide their own specialized touch to enhance Heather's success. Although they both strive for Heather to become as independent as her injury will allow, their focal points center on different aspects of her injury. Their collaborative team effort then allows for Heather to progress more rapidly toward resuming a meaningful life.

Dementia

Dementia is a disorder that exists among an estimated 650,000 people in the United States. According to the American Medical Association: A Family Medical Guide, it is "an incurable disorder of the brain in which there is a progressive loss of memory and other intellectual functions." The disorder causes the victim to become increasingly confused, unaware of surroundings, and culminates in emotional and cognitive instability. The individual possessing dementia also suffers from apraxic disorders whereby he or she is unable to coordinate muscles and movements, conditions that often leave the individual incapacitated. His or her muscles become stiff and exhibit slowness and awkwardness in all movements (Kunz 296).

Although dementia is a mental disorder that cannot be cured, it is an illness treated by professionals within the medical field. Two professionals who often encounter dementia patients are physical and occupational therapists. According to Mick Skelly, a contributor to Physiotherapy in Mental Health: A Practical Approach, "therapists have a powerful non-linguistic dimension for communication literally at their fingertips. Touch-related therapies...provide ways of 'listening to', diagnosing, and empathizing with the client" (Everett 68).

Both physical and occupational therapists play an important role in helping a dementia patient maintain his or her physical, emotional, and cognitive functions. Their differences in focus are revealed in the following hypothetical situation: Frances, an 85-year-old lady, was diagnosed with senile dementia at 70 years of age. Through the years, Frances has come to exhibit many of the common symptoms recognized with dementia such as confusion, uncharacteristic behavior, motility problems, aberrations of space perceptions, cognitive instability, and a mild case of depression. After consultation with family, physicians decided that Frances would benefit from a long-term care facility. Subsequently, Frances soon moved to Ridgewood Terrace, where she has been a resident for five years today.

While a resident of Ridgewood Terrace, Frances has received physical and occupational therapy treatment on a regular basis. Her physical therapist primarily focuses on the restoration of functional motility skills. Other therapeutic regimens center around the improvements of her gait and balance skills, postural stability, and body awareness (Everett 384, 389). The physical therapist strives to maintain optimum flexibility of her muscles, as well as Frances' overall comfort. The occupational therapist, on the other hand, trains Frances in self-help and self-sufficiency skills (Copeland 1). The therapist provides activities that enable Frances to use existing or developed skills and interests to help in meeting basic needs for acceptance, achievement, and social interaction (AOTA, OT in Mental Health). The occupational therapist is responsible for therapeutic adaptations such as assistive equipment and physical environmental design to promote easier and safer motility. Therapeutic activities are also conducted by the occupational therapists to improve Frances' memory, orientation, cognitive interaction, and the life-review process (AOTA, OT Services for the Elderly).

Frances' ability to function is not only impaired by a mental illness, but also from the normal aging process. Thus it is the responsibility of the physical and occupational therapists to meet the needs involved with both areas. As a team, physical and occupational therapists work to prevent and promote health as they strive to restore Frances' function and independence.

Stroke

Stroke is the third leading cause of death in the United States and the leading cause of disability among adults (Donnan 2). It constitutes the most disabling neurological disease of adult life (Duncan 1). Nearly 400,000 Americans suffer a stroke each year; thus, it remains one of the most confounding medical conditions confronting modern health care (Ozer 2). A stroke is caused either by a blockage or rupture of a blood vessel within or surrounding the brain. Either of these events results in a range of motor, sensory, and cognitive dysfunction (Donnan 9). Stoke victims often lack sensitivity of action and coordination at a joint, as well as the loss of balance control and impaired activities of daily living (Ozer 116). Swallowing and communication often become a common problem as well (Donnan 78). The rehabilitation process to treat these stroke outcomes begins soon after the onset of a stroke, entailing treatments provided by a physical and occupational therapist.

As members of the rehabilitation team, the physical and occupational therapists are concerned with helping a stroke victim resume and maintain the best possible lifestyle. They aim to prevent contractures, retard deconditioning, maximize nutritional status, and optimize treatment of associated medical problems (Yatsu 97). Therapists strive to bring the individual to function optimally in every aspect of life--physically, socially, psychologically, and vocationally (Donnan 75). Once again, the differences between physical and occupational therapists may be

revealed in a scenario: Curtis is a 70-year-old man with a history of bilateral cerebral injury following recurrent strokes. He exhibits weakness in both upper and lower extremities; however, the weakness has primarily affected his right side. He is unable to maintain sitting balance or stand for long periods of time without complaining of severe pain. Curtis also displays some loss of muscle coordination and sensory function, thereby causing an impairment in various activities of daily living.

Concern for Curtis' medical and neurologic stabilization is a priority during the rehabilitation process. At the same time it is also necessary to initiate the plan for alleviating the disabilities that occur as a result of the impairments. The physical therapist, for instance, would primarily focus on enhancing motor recovery by various training procedures. His or her objective would be to improve control, strength, coordination, and the selectivity of tone (Ozer 116). The goal is to enable Curtis to regain inhibitory control over abnormal patterns of movement and restored postural control (Ozer 129). Curtis' therapist would also employ activities that would specifically strengthen his trunk control. This would aid his ability to sit for longer periods of time, which in turn would increase his ability to carry out some activities of daily living in a seated position (Ozer 130). In essence, the goal of Curtis' physical therapy treatment is to teach the patient to develop strategies for movement that are functional, responsive to environmental stresses, and adaptable to activities of daily living (Duncan 161). The occupational therapy comes into play when Curtis is alert enough to cooperate . The first objective of occupational therapy is to develop Curtis' ability to transfer from bed to chair and, then, to commode. Exercises would also be employed to strengthen movement , sense perception, and the flexibility of upper extremities. Principally, activities of daily living are the province of occupational therapists as

well. If the previous way of doing a task is not possible, it is the therapist's responsibility to find an alternative way, whether by modifications of the task or assistive devices to make it easier (Donnan 88). The therapist would also be involved in placing Curtis with support groups which would allow him the opportunity to talk with others who suffer from similar illnesses. The support groups could also supply him with a medical explanation of what exactly caused his stroke (Byrum, Interview).

Indeed, Curtis has many needs that require treatment, all of which make the recovery process a challenge for both the patient and therapists. But physical and occupational therapy are essential in order for Curtis to regain an independent, satisfying life.

APPENDIX II

Example Evaluation and Assessment Forms

Patient Intake Form[1]

Patient Name _____

Address _____

Phone Home ( ) _____ Work ( ) _____

What problems brought you to Physical Therapy? _____

_____

What were you able to do before that you can't do now? _____

_____

For each of the following activities, please place a check in the appropriate box. If No/Not Well has been checked, please indicate how important it is to perform better on this activity as a result of therapy.

Ratings:
1 - Not at all important
2 - Somewhat important
3 - Moderately important
4 - Very important
5 - Extremely important

Can Perform Activity/Functional Skills	YES	NO/Not Well	Rating	Activity/Function	YES	NO/Not Well	Rating
Sitting				Using the Stairs			
Standing for up to ____ mins/hr				Dressing			
Rolling				Grooming			
Transfer to/from bath				Can prepare and serve food			
Bathing				Using phone			
Transfer to/from car				Shopping			
Driving				Managing children			
Walking at home				Lifting			
Walking in neighborhood				Carrying			
Walking in community				Reaching			
Accessing buildings				Stooping/Squatting			

Have you been treated or are you currently being treated by a physician or other health care practitioner for any medical or physical problems? _____ If so, what are they? _____

_____

What medications are you taking, if any? _____

_____

What allergies do you have, if any? _____

_____

Do you have any new complaints or problems? _____

_____

_____

Signature _____ Date _____

[1]Stewart, Darlene L. and Susan H. Abeln. Documenting Functional Outcomes in Physical Therapy. St. Louis: Mosby-Year Book, Inc., 1993. Page 137.

Performance Analysis of Supported Tasks[2]

PATIENT'S NAME: _____ DATE: _____

Indicate by circling the best score.

ROLLING

5.0—Rolls to best side from supine without bedrails or attendant.
4.0—Requires verbal cues.
3.0—Requires minimal assistance (<50% effort) to initiate or complete task or uses bedrail/device.
2.0—Requires moderate assistance (50% effort) to initiate, continue, or complete rolling, or requires assistance to use bedrail/device.
1.0—Requires maximum assistance (>50% effort).
0.0—Does not actively participate, or requires assistance of two or more attendants.

SUPINE TO SIT

5.0—Comes to sitting with trunk upright, hips flexed to 90° from lying without attendant or devices.
4.0—Requires verbal cues.
3.0—Requires minimal assistance (<50%) to come to sit.
2.0—Requires moderate (50%) assistance.
1.0—Requires maximum assistance (>50%)
0.0—Does not actively participate, lacks adequate ROM to sit, or requires assistance of two or more attendants.

SITTING BALANCE

5.0—Sits with feet on floor, no weight on UEs, maintains head and trunk upright for 30 seconds without attendant, device, or backrest.
4.0—Maintains sitting with verbal cues.
3.0—Requires minimal assistance (<50% effort) *or* device.
2.0—Requires moderate assistance (50% effort) *or* BUE support.
1.0—Requires maximum assistance (>50%)
0.0—Does not actively participate, or lacks ROM for sitting.

UE MOVEMENT IN SITTING

5.0—Lifts arm(s) toward object without loss of balance.
4.0—Requires verbal cues.
3.0—Requires minimal assistance (<50% effort) to complete task, or requires SUE support to move the opposite UE
2.0—Requires moderate assistance (50% effort) to complete task.
1.0—Requires maximum assistance (>50% effort) to complete tasks.
0.0—Does not participate, unable to attain *or maintain* sitting balance.

Scores represent the patient's ability to complete a given task.

SCORE: _____ TOTAL WPPA SCORE _____

PT/OT _____ FACILITY _____

[2]Stewart, Darlene L. and Susan H. Abeln. Documenting Functional Outcomes in Physical Therapy. St. Louis: Mosby-Year Book, Inc. 1993. Page 253.

Performance Analysis of Non-Supported Tasks[3]

PATIENT'S NAME: _____ DATE: _____

Indicate by circling the best score.

SIT TO SIT: TRANSFERS FROM BED TO CHAIR

5.0—Transfers from sitting bedside to chair, with feet on floor, trunk and head controlled without attendant or equipment.
4.0—Transfers with verbal cues.
3.0—Requires minimal (<50% effort) assistance to complete task.
2.0—Requires moderate (50% assistance) to complete task.
1.0—Requires maximum assistance (>50% effort) to complete task.
0.0—Does not actively participate, lacks ROM for sitting. Requires assistance of two or more attendants, or withdraws feet from floor.

SIT TO STAND

5.0—Comes to full upright standing from sitting without attendant and ends in stance.
4.0—Requires verbal cues.
3.0—Requires minimal assistance (<50% effort) to complete task.
2.0—Requires moderate assistance (50% effort) to complete task.
1.0—Requires maximum assistance (>50% effort) to complete task.
0.0—Does not actively participate, or requires assistance of two or more attendants, or lacks ROM to come to standing.

STANDING BALANCE

5.0—Standing with weight on both feet, trunk and head erect, hips and knees aligned over feet without attendant or device, and maintains for 15 minutes.
4.0—Maintains balance with verbal cues.
3.0—Requires minimal assistance (<50% effort) or LE device (AFO), or support of single UE.
2.0—Requires moderate assistance (50% effort) or device and assistance.
1.0—Requires maximum assistance (≥50% effort).
0.0—Does not actively participate, does not stand, or requires assistance of 2 or more attendants.

AMBULATION

5.0—Initiates walking from stance, walks 15 feet without attendant and terminates in stance.
4.0—Requires verbal cues.
3.0—Requires minimal assistance (<50% effort).
2.0—Requires moderate assistance (50% effort).
1.0—Requires maximum assistance (>50% effort).
0.0—Does not actively participate, lacks ability to stand, or requires assistance of two or more attendants.

Scores represent the patient's ability to complete a given task.

SCORE: _____ TOTAL WPPA SCORE _____

PT/OT _____ FACILITY _____

[3]Stewart, Darlene L. and Susan H. Abeln. Documenting Functional Outcomes in Physical Therapy. St. Louis: Mosby-Year Book, Inc., 1993. Page 254.

Performance Analysis of Non-Supported Tasks[4]

PATIENT'S NAME: _____ DATE: _____

Indicate by circling the best score.

TOOTHBRUSHING

5.0—Prepares toothbrush, brushes teeth, manages secretions in 10 minutes or less.
4.0—Requires verbal cues only due to cognitive deficits.
3.0—Requires minimal physical assistance (<50% effort) for initiation, preparation, or completion.
2.0—Requires moderate physical assistance (50% effort) for initiation, preparation thoroughness during task performance. Some patient carryover is seen if hand-over-hand guidance is stopped.
1.0—Requires maximum physical assistance (>50% effort) throughout. If hand-over-hand guidance is stopped, patient stops.
0.0—Not aware of task, lacks ROM to perform task or refuses.

HAIR COMBING

5.0—Given comb/brush, combs hair in 5 minutes or less.
4.0—Requires verbal cues only due to cognitive deficits.
3.0—Requires minimal assistance (<50% effort) for initiation, preparation, or completion of task.
2.0—Requires moderate assistance (50% effort) for initiation, preparation, or completion of task.
1.0—Requires maximum assistance (<50% effort) throughout. If hand-over-hand guidance stops, patient stops.
0.0—Unaware of task, lacks ROM to perform task, or refuses.

SHIRT DONNING

5.0—Given shirt, patient will don it completely.
4.0—Requires verbal cues only due to cognitive deficits.
3.0—Requires minimal physical assistance (<50% effort) for preparation, initiation, or completion.
2.0—Requires moderate assistance (50% effort) for preparation, initiation thoroughness during task performance, and completion. If physical assistance stops, some patient carryover is seen.
1.0—Requires maximum assistance (>50% effort) throughout. Patient is aware of task, but if physical assistance stops, patient stops.
0.0—Patient is not aware of tasks, or refuses.

PANTS DONNING

5.0—Given pants, patient dons pants completely.
4.0—Requires verbal cues to perform task owing to cognitive deficits.
3.0—Requires minimal physical assistance (<50% effort) for preparation, initiation, or completion.
2.0—Requires moderate physical assistance (50% effort) for preparation and initiation.
1.0—Requires maximum assistance (>50% effort).
0.0—Patient is not aware of task, or refuses.

Scores represent the patient's ability to complete a given task.

SCORE: _____ TOTAL WPPA SCORE _____

PT/OT _____ FACILITY _____

[4]Stewart, Darlene L. and Susan H. Abeln. Documenting Functional Outcomes in Physical Therapy. St. Louis: Mosby-Year Book, Inc., 1993. Page 255.

WORKS CITED

American Occupational Therapy Association. Internet Resource. http://www.aota.org/AOTAmemb.html

American Occupational Therapy Association. Internet Resource. http://www.aota.org/consumer/what.html

American Occupational Therapy Association. Careers in Occupational Therapy.

American Occupational Therapy Association Service Center. Occupational Therapy in Mental Health.

American Occupational Therapy Association Service Center. Occupational Therapy Services for the Elderly.

American Occupational Therapy Association Service Center. Occupational Therapy Services for Infants and Children.

American Occupational Therapy Association Service Center. Occupational Therapy for Children in School Setting.

American Physical Therapy Association. Internet Resource. http://www.apta.org/pt_prof/future.html

American Physical Therapy Association. Internet Resource. http://www.umdnj.edu/~shrpweb/mpt/whatispt.html

American Physical Therapy Association. The Beginnings: Physical Therapy and the APTA. Alexandria: 1979.

American Physical Therapy Association. About Physical Therapy. South Deerfield: Channing L. Bete Co., 1992.

American Physical Therapy Association. Healing the Generations. Alexandria: Greenwich Publishing Groups, Inc., 1995.

American Physical Therapy Association Service Center. The Physical Therapist: A Professional Profile.

American Physical Therapy Association Service Center. A Historical Perspective.

Byrum, Ronnie. Personal Interview. 21 March 1998.

Carney, Nell C. "Seventy years of hope, seventy years of success." Journal of Rehabilitation October-December 1990: 6-8.

Carr, Richard P. Internet Resource.
http://www.carrpt.com/what.pt.html

Carr, Richard P. Internet Resource.
http://www.carrpt.com/what.ot.html

Copeland, Mildred, Lana Ford, and Nancy Solon. Occupational Therapy for Mentally Retarded Children. Baltimore: University Park Press, 1976.

Donnan, Geoffrey, and Carol Burton. After a Stroke: A Support Book for Patients, Caregivers, Families, and Friends. California: North Atlantic Books, 1992.

Duncan, Pamela W. and Mary B. Badke. Stroke Rehabilitation: The Recovery of Motor Control. Chicago: Year Book Medical Publishers, Inc., 1987.

Dougherty, Charles J. "Values in rehabilitation: happiness, freedom, and fairness." The Journal of Rehabilitation January-March 1991: 7-12.

Evans, Paul E. Internet Resource.
http://stats.bls.gov/oco/ocos078.html

Evans, Paul E. Internet Resource.
http://stats.bls.gov/oco/ocos080.html

Everett, Tina, Maureen Dennis, and Eirian Ricketts. Physiotherapy in Mental Health: A Practical Approach. Oxford: Butterworth-Heinemann Ltd., 1995.

Fletchall, S., and W.L. Hickerson. "Managed health care: therapist responsibilities." Journal of Burn Care Rehabilitation January-February 1997: 61-63.

Katz, J.S. "Interdisciplinary Education Modulates Physical and Occupational Therapy Students' Negative Professional Stereotypes." Physical Therapy May 1997: S60.

Krumhansl. Bernice. Opportunities in PT Careers. Lincolnwood: 1987.

Krusen, Frank H. Handbook of Physical Medicine and Rehabilitation, 2nd edition. Philadelphia: W.B. Saunders Co., 1971.

Kunz, Jeffrey R., and Asher J. Finkel. The American Medical Association: A Family Medical Guide. New York: Random House, Inc., 1987.

McEwen, Irene R. Occupational and Physical Therapy in Educational Environments. New York: The Haworth Press, Inc., 1995.

Nelson, D.L. "Why the profession of occupational therapy will flourish in the 21st century." American Journal of Occupational Therapy January 1997: 11-24.

Ozer, Mark N., Richard S. Materson, and Louis R. Caplan. Management of Persons with Stroke. St. Louis: Mosby-Year Book, Inc., 1994.

Rusk, Howard A. Rehabilitation Medicine, 3rd edition. St. Louis: The C.V. Mosby Co., 1971.

Saltzman, Amy. "One physical therapist, 10 job offers." U.S. News and World Report 12 June 1989: 67.

Shestack, Robert. Handbook of Physical Therapy, 3rd edition. New York: Springer Publishing Co., 1977.

Sibilach, Toni. Personal Interview. 28 October 1997.

Stewart, Darlene L., and Susan H. Abeln. Documenting Functional Outcomes in Physical Therapy. St. Louis: Mosby-Year Book, Inc., 1993.

Taylor, Lyn Paul. Taylor's Manual of Physical Evaluation and Treatment. New Jersey: SLACK, Inc., 1990.

Wiegand, Mark R. Personal Interview. 23 September 1997.

Wilkinson, Vivian C. And Stephen L. Heater. Therapeutic Media and Techniques of Application: A Guide for Activities Therapist. New York: Van Nostrand Reinhold Co., 1979.

Willard, Helen S., and Clare S. Spackman. Occupational Therapy, 6th edition. Philadelphia: J.B. Lippincott Co., 1983.

Yarkony, Gary M. Spinal Cord Injury: Medical Management and Rehabilitation. Maryland: Aspen Publishers, Inc., 1994.

Yatsu, Frank M., James C. Grotta, and L. Creed Pettigrew. Stroke: 100 Maxims. Great Britain: Mosby Publishing, Inc., 1995.