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Physical Therapy: A Profession with a Promising Future

by Marie Labbe

(English 1102)

Physical Therapy is a growing medical profession, which I was drawn to especially because it consists of working closely with and helping a variety of people while earning an above average pay. The more I researched the profession, the more I became interested. I found that the profession fit my personality and my qualities well, and most enticing to me is the Early Intervention specialization with babies and children. Physical Therapy, a sophisticated science and a highly desired field that requires extended education and training, is an important and necessary medical profession that has evolved from various cultural practices from many generations and that concentrates on enhancing patients' lives by strengthening their physical capacities and overall wellness. Physical Therapy recently became its own medical field wherein the practices come from different cultures and times; the practitioners are highly qualified and often possess specific personality traits. The education for Physical Therapists (PTs) has also evolved and is now very comprehensive and involved; the specializations are varied and many studies show that the effect of physical therapy can be greater than just improvement in physical wellness.

Physical Therapy developed over time into a more science-based practice. Bernice Krumhansl, in her book called *Opportunities in Physical Therapy Careers*, claims that, in England, toward the end of the nineteenth century, orthopedists started training young women who were physical education (PE) graduates, to give muscular reeducation treatments to patients (10). Mark Drnach, in his book titled *The Clinical Practice of Pediatric Physical Therapy* states that in 1894, in the U.S. the first physical therapists were also women who were PE teachers but they were trained to help with the poliomyelitis epidemic, which affects mainly babies and young children (3). Mary McMillan, an American trained in England is known as the first American physical therapist; her training and muscle reeducation continued to be very important during World War I, when many soldiers were injured and impaired (Krumhansl 4). Since this type of care for the wounded did not belong in any other medical department, the Surgeon General of the US Army Medical Corp formed, at the beginning of World War I, a new Division of Special Hospitals and Physical Reconstruction (4). Marguerite Sanderson started the first physical therapy course at Walter Reed Hospital, and then 14 other hospitals opened physical therapy programs all over the country (11). During World War I these 14 schools trained 800 physical education teachers in these muscle-reeducation techniques and were called reconstruction aides (11).

At the end of World War I these Reconstruction Aides returned to their former work because their new work was not yet established as a specific field. On January 15, 1921, a few of the Reconstruction Aides met in New York City and inaugurated the American Women's Physical Therapeutic Association and elected Mary McMillan as their president. There were 245 members. In 1921, the association started publishing a journal quarterly regarding developments in physical therapy (Krumhansl 12). Trisha Hawkins states in her book *Careers in Physical Therapy* that by the end of the 1930s there were a thousand members and men were joining the association, so they changed its name to American Physiotherapy Association (3).

In 1925, physical therapy was recognized by the American Medical Association as a specific medical field. The Council on Physical Therapy was established and it outlined a nine month course to be offered in medical schools for the graduate nurses and PE graduates. Before long, "sixteen schools were graduating 135 students a year....The field of physical therapy was gaining momentum"

(Krumhansl 12). There were about 1,000 physical therapists in the U.S.

In the 1940's and 1950's the casualties of the war and the many victims of the polio epidemic again required the development of many more physical therapists and proved how strongly needed they were. Army hospitals and private hospitals started offering courses in physical therapy and most civilian schools accelerated their programs. In 1946, at the end of the war, most accelerated programs were stopped; however, 21 schools could educate 480 PT students. The polio epidemic of the 1940's and 1950's was the worst in history; there were approximately 14,500 people affected. Physical therapists were so important in treating polio patients that "[i]n 1945 the National Foundation for Infantile Paralysis gave the American Physiotherapy Association \$1,267,000 for two thousand scholarships to train physical therapists and other necessary personnel" (13).

In 1946 the APA became known as the American Physical Therapy Association (Drnach 4). The 1940's and 1950's were important years for the development of the physical therapy field. Trisha Hawkins explains in *Careers in Physical Therapy* that practitioners were highly needed during the war and the epidemic and continued to be even after (3). Physical Therapy was finally an independent medical field and the association kept getting stronger. Today this medical field is still growing and developing, and the professions in physical therapy are highly sought after.

Physical therapy is relatively new as a profession but is based on various practices used over thousands of years in different cultures. As Hawkins describes it, "Physical therapists (PTs) are the heirs to the ancient tradition of healing by physical methods. At the same time, they are modern health professionals—highly skilled, educated, and trained to evaluate and treat health and movement problems that result from injury and disease, as well as disorders present at birth" (5).

Therese Harasymiw, in her book *A Career as a Physical Therapist*, explains that heat may be one of the oldest modalities used by man to relieve pain. Heat helps with relaxation of muscles and blood circulation (23). Warm towels or heat packs have been commonly used. Another heat method used by the Greeks was fever treatment as therapy. They would cure diseases by raising the body temperature of the patients. The Romans discovered that the application of hot wax could relieve pain (Krumhansl 3).

Ultrasound is a modern use of heat therapy. In the beginning of World War II, German scientists were trying to find a way to use sound waves for therapy. By the mid-1950s ultrasound was developed and used as a physical therapy treatment. The high frequency sound waves are used to reach through the skin to the internal body tissues to promote healing (3).

Even though it would seem that cold therapy was used as early as heat, it was not because it could not be made without ice or snow. Russians, therefore, obviously were able to use it more frequently. They used ice therapy to "reduce high fevers, to control infections, to treat wounds and to treat meningitis. It was also used to treat diseases of the central nervous system" (4). Ice packs are now most often used to reduce pain and swelling in topical areas. Cold therapy can also be referred to as cryotherapy (Harasymiw 23).

Water therapy is similar to that of heat and cold therapy; it has also been used for generations to relax muscles through temperature. However, hydrotherapy is uniquely used for its power to weaken the force of gravity, which can relieve the stress on weight bearing joints and muscles. Water therapy is used to "stimulate the immune system, slow down the production of stress hormones, invigorate blood circulation and digestion and lessen inflammation" (Krumhansl 5-6).

Electrotherapy was also used in ancient times. In Rome, electric eels were used for arthritis treatment (Harasymiw 23). There are now many uses for electric currents including pain control reducing muscle atrophy and accelerating healing by drawing blood to the tissue (25).

Massage and exercise are the most commonly used treatments in physical therapy and have been used to improve health in many ways. Massage and exercise are an innate human response to pain. People naturally try to bend their bodies or rub and massage muscles to relieve pain. Massage and exercise can also be used to treat illnesses. The first to help with the recovery of fractures,

dislocation or other injuries were ancient Greek gymnasts. The realization of the benefits of exercise came in the 17th century in England and the understanding of the relation between massage, blood circulation and general health came in the 18th century in France and Germany (Krumhansl 8). Most therapeutic exercises used today to promote health come from Pehr Henry Ling of Sweden, who showed that properly done exercise could heal diseases and body dysfunctions. He was the founder of the first institute for medical and orthopedic gymnastics. The Swedish system introduced two types of exercise, resistive exercises and isometric exercises. They are muscle-building exercises that consist of squeezing against resistance without movement (9). The effectiveness of massage, acupuncture and acupressure are subject to controversies because they are based on the theory that “[t]he central nervous system and the circulatory system connect internal organs to the skin and all points in between. Pressure applied to certain points in the body will result in electrical messages or bodily fluids carried to other part” (10).

The work of a physical therapist often consists of introducing the patient to exercises and teaching them how to perform them properly. There are different types of exercises depending on the ability of the patient to move. Some patients might not be able to move at all, while some have very little strength and others just need to strengthen a little bit. Some exercises are meant for patients to do on their own and others are meant for the therapists to perform on patients with little to no help from them. If patients are able to do exercises on their own, physical therapists can request that they perform the exercises on their own at home and teach them how to properly do so (Harasymiw 19).

Physical therapists can work in many different settings; they can work in hospitals, in rehabilitation centers, in outpatient clinics, in private practices, in home health agencies, in schools, in nursing homes, and even in emergency rooms. Physical therapists work in general about 40 hours a week but the hours can widely vary from one therapist to another. Katie Guimon, a physical therapist at Cadence Health Hospital in Winfield, Illinois, works about ten hours a day and four days a week, which is the average 40 hours a week. Michele Neidlinger, a physical therapist in early intervention whom I interviewed, works about ten to twenty hours a week as an independent contractor and two 10-hour days a month at the hospital.

The pay for a physical therapist varies from the setting they work in, the state, and seniority. In the United States a physical therapist earns on average \$38.39 an hour and \$79,860 a year (United States. Dept. of Labor Bureau of Labor Statistics). In Illinois the average pay of a physical therapist is slightly lower, \$36.87 an hour and \$76,700 a year (“Summary Report”). Benefits vary depending on the setting that physical therapists work in. Neidlinger, for example, receives health insurance, money for continuing education, and a 401K from working at the hospital, but doesn’t receive any benefits as an independent contractor.

Physical therapists are highly educated. To be a qualified physical therapist, one must earn a Master’s or a Doctoral degree in Physical Therapy and successfully pass the national exam called the National Physical Therapy Exam (NPTE). The programs vary depending on the school but the classes required before entering the program often include “psychology, biology, physics, chemistry, statistics, English, professional writing, and humanities. After you are accepted in the program the courses will become more focused on the physical therapy practice” (“Become a PhysicalTherapist”). Neidlinger became a physical therapist with only a Master’s degree but she has been practicing for fourteen years. Now it is getting harder to become a physical therapist with only a Master’s Degree and by 2017 that won’t be possible anymore. All physical therapy students will then be required to get a Doctoral Degree in order to become physical therapists (*American Physical Therapy Association*).

The American Physical Therapy Association (APTA) is the national association of physical therapy; it includes 88,000 members including practicing and non-practicing physical therapists, physical therapy assistants (PTAs), and physical therapy students. The association holds three national conferences a year, publishes a journal every month called the *American Physical Therapy*

Journal and regularly updates its website www.apta.org. According to Neidlinger, she is no longer an APTA member. She explained that “[t]he fees were high; about 200 dollars a year, and although it was really helpful for [her] research at school, it wasn’t that helpful after and [she] didn’t have time to read the journals.”

Physical therapy has a bright outlook; it’s a growing field. As most professions in medical fields, physical therapy ensures a job security because even during recession medical bills are one of the last ones that can be eliminated. The baby boom generation is getting older and is more and more often in need physical therapy treatments (United States. Dept. of Labor Bureau of Labor Statistics). Camden Flath, in *Therapy Jobs in Educational Settings: Speech, Physical, Occupational, & Audiology*, claims that the need for physical therapists is growing in schools too (54). However, the fact that the field is growing and new advancements are regularly made means that physical therapists have to keep learning as they practice. Neidlinger explained that PTs have to take 40 hours of class and pass a test every two years. An article by Jeffrey W. Hathaway on PhysicalTherapist.com cautions about the fact that even though the future looks good the issue of reimbursements can be a problem. Health insurance doesn’t always cover all the recommended treatments and patients aren’t always capable of paying themselves. Some patients don’t receive all the necessary treatments because of that.

Like other medical fields, there are specializations in physical therapy. Many physical therapists work in a special area of the field, but not many are certified in their specialization. Neidlinger states that “[she is] specialized in pediatrics but [is] not certified because it takes a lot of time and more education. The board exam is supposedly very hard and very specific. You really have to be an expert in your specialization to pass that exam.” PTs may specialize in orthopedic medicine, sports medicine, neurology, cardiopulmonary medicine, electrophysiology, pediatric medicine, geriatric medicine, or women’s health (Harasymiw 11-17). “Physical therapists who choose to specialize are prepared to treat patients within that area of medicine,” notes Harasymiw (11). “They study more about certain parts and functions of the body as well as specific disorders, disabilities, and diseases” (11).

The job of physical therapists is to evaluate their patients, find the most appropriate treatment therapy, conduct the therapy and evaluate the progress of the patients. Hawkins explains that to evaluate a patient, a physical therapist has to take the medical and personal history of the patient, evaluate his strength, evaluate his range of motion (ROM), evaluate the patient’s pain, evaluate the patient’s functions and evaluate other factors, such as posture, skin condition, respiratory system, heart-beat, brain and nervous system function and senses. The process of evaluation is very important because there isn’t always a previous diagnosis and the patient might have many layered problems causing chronic pain and loss of function. The Physical Therapist’s evaluation skills are very important to understanding the source of the problem and consequently for the appropriate treatment therapy (27-29).

After the evaluation, a PT needs to choose the appropriate treatment. The most commonly used method of treatment is the therapeutic exercise. PTs, however, also use manual and massage therapies to manage their patient’s pain, increase their range of motion, reduce their inflammation, or induce relaxation. Physical therapists can also use other therapies such as pulmonary therapy, hydrotherapy, cryotherapy, heat therapy, electrotherapy, as well as other complementary therapies (41-43). PT’s can help patients choose appropriate assistive devices and teach them how to use them. The PTs also teach patients with prostheses and orthotics to walk again or use their limbs properly in their new condition (43). “Each patient is evaluated as an individual and each treatment plan is unique,” explains Hawkins (44). Physical therapists apply treatment therapies, adapt them to their patients and modify them to their individual needs. Physical therapists also continually monitor their patients’ progress and adjust treatment plans as necessary until the desired goal is reached.

Physical therapists are service providers. Krumhansl believes that they must be open to a

wide variety of people: “They need to interact with people from a range of cultures and with varying levels of education and socioeconomic statuses” (24). Two important qualities for a PT are empathy and compassion. Physical therapists need to gain the trust of their patient to get them to cooperate with the treatment. By showing that they genuinely understand and care about their pain and that they want to help, the patients are more likely to react positively to the treatment therapy. Hawkins illustrates this point with the words of a physical therapist: ““You have to be able to make therapy fun, and be very much a caring person. You’ve got to be a person who really wants to know people and learn what is most important to them... it’s very much a relationship”” (Margaret Plack qtd. in Hawkins 25). Krumhansl observes that physical therapists have to be thoughtful and sensitive:

Tact is an important personality trait for physical therapists to possess. People who are ill and in pain must be dealt with carefully and sensitively. Patients are living individuals who, when you encounter them, will be in a physical and emotional crisis. This will mean they may be resistant to treatment and may have difficulty understanding the need for particularly painful forms of treatment. A PT must be able to inspire confidence in them and build a solid working framework with them and their families to provide them with and have them accept the highest-quality care. (26)

Emotional stability is also crucial for a PT since there is so much going on simultaneously and quick clear-headed decisions are often necessary. There are also often interruptions from other medical personnel and multiple patients to work with as well, so there is a need to be able to multi-task (Krumhansl 25). Physical therapy can be a strenuous work; PTs need to be in good physical shape themselves. Harasymiw points out: “[T]hey bend, crouch, lift, stand, swim, pull, push, walk, run, and support” (27).

I have always been very interested in working with children and was delighted to find out that pediatrics was an important section of physical therapy. Neidlinger works in early intervention and reported that she didn’t need the certification of specialization to do so. She works with 0 to 3 year old children at their homes, which sounds very enticing to me, and is able to find enough patients within a 5-mile radius. My interest in early intervention brought me to an article written by Michele A. Lobo et al. titled “Grounding Early Intervention: Physical Therapy Cannot Just Be About Motor Skills Anymore.” This article discussed the fact that physical therapy impacts more than the physical wellness of children; it also has a big impact on their future cognitive, language and social development (95). The idea of the article is that muscle and brain are almost always used together and that strengthening the connection between the two can lead to a long term improvement in capacities in all domains. The article gave the example of school work, which can seem to be more of a mental activity but the article explains that physical activities are very often involved in it. Writing, for example, uses the brain and the muscles of the hand; talking uses the brain and all the mouth muscles. The habit of using the brain and the muscles simultaneously becomes easier and more natural over time, but physical therapy at an early age can help make the connection stronger and, therefore, improve the chances of having good learning capacities and lessen the chances of having learning disabilities. “[T]he research strongly suggests that early object interaction, sitting, and locomotor behaviors are important vehicles for promoting future cognitive, perceptual-motor, language, and social-emotional development,” explains the article (98). Understanding the deep improvement that can be done through physical therapy reinforces my desire to become a physical therapist. Furthermore, because I am very interested in working with babies and young children, I was very interested in the important impact of physical therapy on the development of young children.

Physical therapy is a profession with many opportunities. The job offers great variety and

involves working with many different people, patients and other medical and professional staff. Physical therapists can experience many feelings every day: “demanding, rewarding, draining, inspiring....Perhaps it is that variety that draws many physical therapists to their work” (Harasymiw 51). Many surveys have shown that physical therapists are some of the most satisfied with their job. For example, Harasymiw reports that, in a survey for *U.S News and World Report*, “[M]ore than three-quarters said they were ‘very satisfied’” with their profession (51). Neidlinger confirmed being very satisfied herself with her career as a PT. Physical therapy is a medical profession that is growing much faster than average. According to the Bureau of Labor Statistics, “[E]mployment of physical therapists is projected to grow 36% from 2012 to 2022.” This career is projected to be one of the most recession-proof fields because health is less often affected by recession. The educational requirements are extensive but lead to excellent job security and satisfaction. Most of all, the help one can bring to others as a PT can be very rewarding.

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