Diagnosis by the Physical Therapist— A Prerequisite for Treatment

A Special Communication

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A critical step for the future of the profession of physical therapy is the development of diagnostic categories. The purpose of this communication is to clarify issues regarding the role of the physical therapist in developing classifications of the signs and symptoms that are identified by the therapist's examinations and tests. A primary premise is that treatment should be based on the diagnosis derived by the physical therapist because the medical diagnosis does not provide sufficient direction. A generic definition is given as a guide for development of diagnostic classification schemes. Arguments are provided that these diagnoses will 1) clarify practice, 2) provide an important means of communication with colleagues and consumers, 3) classify and group conditions that can direct research and assessment of treatment effectiveness, and 4) reduce the tendency toward cultism associated with practice based almost entirely on treatment approaches.

Key Words: *Classification; Diagnosis; Physical therapy profession, professional issues.*

The role of the physical therapist as a health care professional has been clarified increasingly over the past 15 years. This role clarification is reflected in the actions taken by the American Physical Therapy Association in response to demands by those in practice. These actions are consistent with two of the primary characteristics of a profession: 1) autonomy and 2) a defined body of knowledge. Autonomy was emphasized by the House of Delegates' motions that established independent accreditation[1] and direct-access practice, which permits physical therapists to evaluate and treat clients.[2] A step taken toward clarifying the body of knowledge was the adoption of a philosophical statement that identified movement dysfunction as the physical therapy content area of expertise.[3] A logical premise is that direct-access practice requires physical therapists to identify, or "diagnose," the conditions to be treated. In 1984, the APTA House of Delegates passed the motion that "physical therapists may establish a diagnosis within the scope of their knowledge, experience and expertise."[4] A key question is whether a physical therapy evaluation that is permitted by law can be equated to a diagnosis. If it can be considered as such, what component of the evaluation could be used as the "label," or diagnosis?

EVALUATION VERSUS DIAGNOSIS

The June 1988 *Progress Report* indicates 20 states have enacted legislation that permits physical therapists to practice without referral.[5] Twenty-one other states have approved evaluation without referral.[6] Direct-access practice highlights the need for physical therapists to name the condition they are treating because the patient would not be entering the health care system with a label provided by the referring physician. Because some state laws permit evaluation or evaluation and treatment but do not mention diagnosis, a legal question confronts physical therapists about the relationship between evaluation and diagnosis. Recently, a physical therapist practicing in a state that permits evaluation without referral was placed on licensure probation because he "rendered a diagnosis." Although presumably the outcome of a physical therapy evaluation is essentially a diagnosis, this result is not necessarily the case. *Evaluation* means to determine or fix the value of something.[7] Physical therapists have always been responsible for performing evaluations that provided information about the state of specific anatomical or physiological components such as joint range of motion or strength of muscles. Collecting these various pieces of information, which could be considered assessing the value or the state of various systems, is very different from using this information for an interpretation of a specific condition. Michels[8] has discussed the inappropriate use of the word evaluation by the physical therapy profession; however, it is the term used in most state laws and the one that is found most often in physical therapy literature. Future efforts should certainly be directed toward using the correct terminology for the examinations, tests, and measurements we perform.

Several questions regarding the issue of diagnosis must be considered carefully. How is the diagnosis made by a physical therapist similar to or different from that made by a physician? What is the purpose of physical therapists establishing a diagnosis, and is this function important? As a physical therapist, I believe that these issues are important and that the future of our profession depends on how responsibly we pursue implementing our role as diagnosticians. The purpose of this communication is to clarify the issues associated with that role. The major premises of this communication are as follows:

1. The medical diagnosis is not a sufficient diagnosis to direct physical therapy.

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2. Diagnostic categories must be developed by physical therapists that clarify what they can diagnose by virtue of their education and license.
3. Diagnostic categories will provide 1) a means of communication with colleagues and consumers about conditions requiring physical therapists' expertise, 2) the necessary classification for deriving treatment effectiveness and prognosis, and 3) a grouping of conditions toward which research can be directed.

Practice based on diagnoses would augment treatment effectiveness, and assessment of that efficacy should reduce the tendency toward cultism associated with practice based almost entirely on treatment approaches.

EXCLUSIVENESS OF THE TERM "DIAGNOSIS"

Is diagnosis a term that is exclusive to the medical profession and that clearly relates to pathology? *Diagnosis* is the name given to a collection of relevant signs and symptoms. No other word adequately connotes or denotes what is meant by the term diagnosis. The recipients of physical therapy services understand its meaning because it conveys that the practitioner has identified the basis of their problem and can provide appropriate treatment. The term is not exclusive to the medical professions because other professionals, ranging from teachers to automobile mechanics, also use it. The *International Classification of Diseases: Clinical Modification* is a compendium of diagnoses and procedures that has been used by the Health Care Financing Administration for constructing the diagnosis-related groups that are the bases of payment for Medicare and other third-party payers.[9] The diagnoses included in this document are considered acceptable by international medical and financial associations and organizations. Examples of the diagnostic labels included in this document are conditions and descriptive terms such as "low back pain," "arm pain," "muscle atrophy," and "muscle weakness." Clearly, any of these diagnoses could be made by a physical therapist because they are names of conditions characterized by signs or symptoms routinely and probably best identified by the tests and measurements used in physical therapy practice. Without any further classification or development, many diagnostic labels included in this widely accepted diagnostic system, therefore, could be used by physical therapists.

As we all know, general diagnoses such as low back pain or hip pain do not often relate to the cause or to the underlying nature of the condition. Such terms are used when medical diagnostic procedures do not reveal a cause. I believe that, particularly in these musculoskeletal pain situations, physical therapists can provide a more relevant diagnosis that does relate to the cause than is provided by the medical practitioner using these terms. "Femoral anterior impingement syndrome," for example, would certainly be a better and more informative descriptive term than "hip joint pain." Surely, the function of a diagnosis is to provide information that can guide treatment. Thus, by the members of the physical therapy profession recognizing their role and responsibility to become diagnosticians, they can begin to classify signs and symptoms more actively and develop the categories that will enhance the effectiveness of their practice and their contributions to health care.

IMPLICATIONS AND BENEFITS OF DIAGNOSTIC CLASSIFICATIONS

What are the implications and benefits of developing diagnostic categories? In Webster's unabridged dictionary, diagnosis is defined in several ways.[10] The first definition is "the act or art of identifying a disease by its signs and symptoms." The second is a concise technical description of a *taxon* (taxonomy being the study of the general principles of scientific classification). The third definition is "the investigation or analysis of the cause or nature of a condition, situation, or problem." These definitions express two important things about a diagnosis: 1) a label is given to a condition, and 2) that label provides characteristics of the condition when it is communicated to others. Because the condition can be classified, treatment can be defined, and a prognosis can often be given. Because of the common knowledge provided by the label, the condition can be identified more readily and accurately in patients. Signs, symptoms, and specific tests are indicators of the condition and are thus important information in the development of the diagnosis. In addition, because of the communication that is made possible by use of a specific label, the underlying processes and the effectiveness of treatment are usually known.

The process of classifying signs and symptoms is often the means of recognizing commonalities and thus formulating a diagnostic category. Physicians have used this process as the basis of their practice. The continual categorization process, which includes publication of categorical characteristics and the methods and effectiveness of their treatment, has been used to identify many diseases and their underlying pathophysiology.

Historically, physical therapy, or treatment with natural means, was ordered by physicians based on their diagnoses of musculoskeletal pain or movement impairment. Exercise or a physical agent could be used to alleviate or improve the condition. Depending on the setting, the specificity of the direction provided by physicians varied from the detailed prescription to the general referral for evaluation and treatment. Time, which has been accompanied by changes in responsibilities for both physicians and physical therapists, has also demonstrated an expansion of physical therapists' knowledge of physiology and pathophysiology. The practice of medicine by physicians has moved toward a chemical basis. Their knowledge of molecular and submolecular structures is fundamental to their practice because of the pathophysiological basis of most diseases; gross anatomy has been de-emphasized. Physical therapists' primary responsibility has been to understand anatomy and the components of kinesiology and *kinesiopathology*, or the study of disorders of movement (in contrast to *pathokinesiology*, or the study of movements related to a given disorder), because this information is the basis of their practice. Additionally, other professionals have little academic preparation in these areas. The different academic directions for physical therapists and physicians are why, in part, physical therapists must become diagnosticians.

MOVEMENT DYSFUNCTIONS REQUIRE DIAGNOSTIC CATEGORIES

Information about the components involved in movement has increased to such an extent that a science is being established.[11] Just as the expansion of information about the ner-

vous system led to the establishment of neuroscience, or neurobiology, and with the formation of doctoral programs and a professional society, similar events are occurring with movement as the focus and with prevention and treatment of movement dysfunction as the applied science of the field. As the expertise of physical therapists grows in this area, they are increasing their ability to identify the key factors that underlie movement and movement dysfunctions that most often are separate from the medical problem that may have initiated a movement impairment.

An example to clarify this point can be found in patients with hemiplegia. The physician, after examination and adequate testing, will diagnose the condition of the patient as a cerebrovascular accident (CVA) and may even specify whether it was of embolic or thrombolytic origin and indicate the primary vessels involved. This diagnosis, however, provides only a limited amount of information that is pertinent to the physical therapy management of the patient. In only a very general way does the diagnosis of CVA direct the physical therapist's treatment. The general treatment goal is to restore mobility of the patient within the environment and of the limbs wherein possible. But what of the subclassification of the characteristics of the hemiplegia itself? The additional general label of "flaccid" or "spastic" surely means little when considering treatment or prognosis. What is necessary is for a physical therapist to classify or categorize, by specific assessments, the components of the movement dysfunction that will provide definitive guidelines for treatment and for a prognosis. The label attached to the final composition of these assessments, whether it is as general as "type 1 hemiplegia" or as specific as "nonfragmented volitional movement with severe tone dysfunction," would be the diagnosis by the physical therapist.

These labels are just examples to illustrate the point and are not actual diagnoses at this stage, although work is underway currently on just such a classification project.[12] Partially because physical therapists have not considered themselves as diagnosticians, they have not developed a system for classifying the characteristics of the conditions of hemiplegia. If a diagnostic system existed, a record of the successes and failures of specific types of treatment for a given diagnosis (eg, a classification of paralysis) would provide a rational approach to treatment prescription. When functioning without a diagnosis, individual therapists base the program for each patient strictly on their own judgments. If a physical therapist, for example, chose to have a patient with exaggerated associated reactions participate in a resistive exercise program, which many therapists might consider contraindicated, there is no documented reason not to do so. Similarly, one physical therapist may decide that a patient with a flaccid paralysis of one month's duration should not perform any strenuous exercises or activities for fear of inducing associated reactions, whereas another therapist may believe that such reactions are highly unlikely and that the activities are necessary. These beliefs cannot be tested adequately until therapists know they are treating patients with similar conditions, because the diagnosis of hemiplegia has been subdivided into its logical divisions and the same diagnostic label is being used to describe the condition being treated.

In summary, designations of specific diagnoses by physical therapists are important. These diagnoses will direct treatment and provide a means to begin communicating about treatment, prognosis, kinesiopathology, and perhaps etiology.

GENERIC DEFINITION OF DIAGNOSIS BY PHYSICAL THERAPISTS

Is there any necessity for a generic definition of a diagnosis by a physical therapist? Yes, to ensure attaining the goals of the profession, physical therapists should have a clear statement of the meaning of the diagnostic word and the context in which they will responsibly and legally use it. A generic definition will also help to guide the development of diagnostic classification schemes. The definition I propose is as follows: Diagnosis is the term that names the primary dysfunction toward which the physical therapist directs treatment. The dysfunction is identified by the physical therapist based on the information obtained from the history, signs, symptoms, examination, and tests the therapist performs or requests.

This definition is broad enough to include the practice of any of the physical therapy specialties and to provide for future growth as the profession incorporates additional forms of examination and testing. This definition is clearly not meant to be a "physical therapy diagnosis," which would imply that it would be unique to a physical therapist. As physical therapists disseminate information about the diagnostic labels they use, a wide variety of other practitioners would be expected to recognize the same signs and symptoms in their patients and to use these terms when referring patients to physical therapists for confirmation of the presence of these conditions and for treatment.

Implicit in this definition, however, is the understanding that physical therapists would not diagnose conditions that require tests or procedures that are outside their practices. Thus, therapists could not establish the diagnostic label of "fracture" unless their physical examination showed visual or manual evidence of bone separation. This diagnosis would be a designation of severe soft tissue injury; if a fracture were suspected, the therapist would then refer the patient to a physician for radiological examination and additional diagnosis. Similarly, physical therapists could not diagnose a herniated disk, because they currently do not request the tests required for establishing this diagnosis. Furthermore, in my experience, this type of diagnosis is not adequate to direct my treatment prescription, although the information may be useful to me. My treatment prescription would be based on the diagnosis I obtain by examining the patient's alignment faults and by noting the movements that affect the symptoms. The diagnosis that I would make might be "lumbar hyperflexion with neural impingement." This diagnosis directs my treatment prescription, because it is the resolution of these alignment and movement faults that will be the basis for the exercise and body mechanics programs that I will teach the patient.

The proposed generic definition does not preclude using the results of other health care professionals' (eg, radiologists, orthopedists, or neurologists) tests to establish the direction for the physical therapy program because this information is pertinent history. It does preclude allowing the physical therapists' diagnostic labels to imply that they diagnosed conditions requiring tests or examinations that they are not licensed to perform or request. Thus, "quadriceps femoris muscle weakness with history of meniscal pathology" would be more informative than "quadriceps femoris muscle weakness" and would not mislead others regarding the therapist's role. The diagnosis "meniscal pathology" would be improper and in-

adequate, because it does not guide the treatment nor are therapists educated and licensed to perform or order the tests that are necessary to establish this diagnosis.

As illustrated in the example of low back pain, this diagnostic definition would also apply to the subclassification of those conditions that currently receive only very general labels. Individuals who develop regional musculoskeletal pain syndromes or overuse syndromes most often demonstrate faults in alignment, muscle length, strength, endurance, or movement pattern long before a pathological condition is evident in radiological tests. By developing specific diagnostic labels for these conditions and by establishing standards of examination and treatment that could be compared and evaluated, physical therapists would be using the very process that has worked so well for the medical practitioner and, as a result, for society. The development of these diagnostic categories would also enable physical therapists to be more effective in their treatments because, rather than providing purely symptomatic relief by application of physical agents, they would be identifying causative factors and trying to correct them.

SUMMARY

Physical therapists thus must establish diagnostic categories that direct their treatment prescriptions and that provide a means of communication both within the profession and with other practitioners and consumers about the conditions that require their particular expertise for effective treatment and prognostication. Additionally, for professional credibility, physical therapists must refrain from using diagnostic labels that they cannot confirm through their own recognized examination and testing methods. The delineation of diagnoses that are based on signs and symptoms and that direct treatment prescriptions will also aid therapists in the process of identifying those conditions that are outside of their scope, which is a primary requirement for safe and ethical practice. Too often the belief is expressed that the physical therapist must be able to make a differential medical diagnosis, that is, to identify the specific disease. That type of differential medical diagnosis requires a medical education. The generic definition of the term diagnosis as stated in this communication will help establish which conditions require a diagnosis by physicians and which conditions require diagnosis by physical therapists.

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