Practice as a 
Movement System Expert: 
New Horizons for Physical Therapy 
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Susan L. Whitney receives royalties from Oxford Press as an author of a book entitled “A Case Study Approach to Balance Disorders”.

Session Learning Objectives

• Provide the definition of the Human Movement System (HMS) and an overview of its evolution as the identity of our profession
• Provide ‘practice examples’ of a movement system evaluation and movement analysis to initiate engagement and understanding of the concepts
• Present and discuss the need/opportunity for a reliable/valid movement system evaluation and diagnostic taxonomy as the organizing basis of practice
HMS: Evolution Questions

- Why is it important for PT’s to be responsible for a body system?
- Why the “Movement System”
- What is the “Movement System”
- What are the responsibilities of a body system expert?
- How will our societal role change when we are responsible for the Human Movement System?
- How will we be able to change PT practice?

Characteristics of Highly Respected Health Care Professions/als

- Commonly responsible for a system of the body
- Specialized knowledge of the system is gained through a unique program of focused education (didactic knowledge and skilled practice)
- Specialized knowledge of system functions/dysfunctions demonstrated by expertise with examination, diagnosis, prognosis, intervention, outcome assessment
- Use of common labels/language to identify system function/dysfunction and communicate regarding system management
- Responsible for testing current knowledge and creating new knowledge related to system function

How Does PT Measure Up as a Profession?

- Are we responsible for an identified system of the body?
- Specialized knowledge of the system is gained through unique program of focused education, (PT Curriculum)
- Specialized knowledge of system functions/dysfunctions demonstrated by expertise with examination, diagnosis, prognosis, intervention (Analysis of Practice/Specialties?)
- Use of common labels/language to identify system function/dysfunction and communicate regarding system mgmt (PTJ, Foundation)
- Responsible for testing current knowledge and creating new knowledge related to system function? (PTJ, Foundation)
Where was our ‘System Identity’ in 1975?

- “Physical therapy today is in the midst of a crisis of identity.”
- “We must ask ourselves if in our attempt to develop in multiple directions we have assumed a cloak of unidentifiability”.


Physical Therapy: What’s in a Name?

“The identity crisis Dr. Hislop saw a decade ago has worsened. We, as a profession, may be doing more things, but in no way have we developed a true sense of who and what we are. All too often, we are defined by the tasks we do, and, as a result, only those who have seen therapists in practice have the vaguest notion of who and what we are.”


1985 - External Perceptions

- “Physical Therapists are ‘big’, like soldiers or bodybuilders, they can lift you and make you do things even when you’re paralyzed...”
- “…Since I’ve been injured, can a PT tell me, is it safe for me to exercise”?
- “Before you exercise, see your doctor who will determine IF it’s safe to exercise and IF you should see a physical therapist....”

APTA Consumer Impressions: On the Street Interviews
2016 - External Perceptions

“...However, chiropractors diagnose problems in their patients, where physiotherapists are responsible for helping people deal with pre-existing problems”.

Cocke A. Chiropractor vs Physiotherapist.
http://www.ehow.com/about_5402043_chiropractor-vs-physiotherapist.html

...And today, you do not need a physician’s referral to access the PT, but apparently, some physicians believe the PT Expert is not necessary.”

“Your 15-Minute Alternative to Physical Therapy; Created by Doctors, Customized for You” SimpleTherapy.
http://www.simpletherapy.com/

What are the Implications.....

• Physical Therapy (PT) is treatment.
• The physical therapist is not needed to determine the condition that is to be treated.
• “PT” does not convey that there are or should be described, defined and diagnosed (movement) system syndromes based on research and identified by reliable and valid diagnostic techniques
• Suggests that the movement dysfunction of any individual is not particularly complicated and will probably respond to any exercise routine with or without the expertise of a PT
• That movement dysfunctions associated with some conditions may be recognized as complicated but they require the expertise of an MD before the intervention of PT

What are we doing about it?

2011 House Of Delegates Charge To APTA Board Of Directors

“...review and revise the current APTA Vision Sentence for Physical Therapy 2020 ... to reflect the vision of the profession of physical therapy and its commitment to society beyond 2020.”

Action = Vision Task Force...

APTA House of Delegates 2011
APTA Vision Statement: 2013

Transforming society by optimizing movement to improve the human experience.

www.apta.org/Vision

Vision: Guiding Principles

• Identity
• Quality
• Collaboration
• Value
• Innovation
• Consumer-centered
• Access/equity
• Advocacy

Vision Principle: Identity

The physical therapy profession will define and promote the movement system as the foundation for optimizing movement to improve the health of society. Recognition and validation of the movement system is essential to understand the structure, function, and potential of the human body. ...
Vision Principle: Identity

...The physical therapist will be responsible for evaluating and managing an individual’s movement system across the lifespan to promote optimal development; diagnose impairments, activity limitations, and participation restrictions; and provide interventions targeted at preventing or ameliorating activity limitations and participation restrictions. The movement system is the core of physical therapist practice, education, and research.

What Is the Goal of Having a Movement System Identity?

- Physical therapy will be a health profession not defined by the techniques we use but rather by our body of knowledge and our professional skills.
- The human movement system will be the scientific foundation of our practice.

Does the “System” Definition Fit?

1) A group of interacting, interrelated, or interdependent elements forming a complex whole;

2) Functionally related group of elements, especially:
   a. The human body regarded as a functional physiological unit,
   b. An organism as a whole, especially with regard to its vital processes or functions,
   c. A group of physiologically or anatomically complementary organs or parts: the nervous system; the skeletal system.”

American Heritage Dictionary
Our Identity: **What Is The Human Movement System?**

The human movement system comprises the anatomic structures and physiologic functions that interact to move the body or its component parts.

*Human movement is a complex behavior within a specific context.*

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**Characteristics of the Human Movement System Definition**

- *Intended to be generic* – similar to other anatomic and physiologic body systems
- *Inclusive of all body systems involved in movement* including those that produce – musculoskeletal; regulate – nervous; support – cardiovascular, pulmonary, endocrine; and protect – integumentary human movement.
- These systems generate and are affected by movement
- *Intended to be used/contributed to by other branches of science and other scientists and professionals*
- *Specific use by physical therapists* in physical therapist practice is described separately from the definition

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**Does the “PT Practice Model” Fit?**

- Physical therapists provide a unique perspective on purposeful, precise and efficient movement across the lifespan based upon the synthesis of their distinctive knowledge of the movement system and expertise in mobility and locomotion.
- Physical therapists examine and evaluate the movement system (including diagnosis and prognosis) to provide a customized and integrated plan of care to achieve the individual’s goal directed outcomes.
- Physical therapists maximize an individual’s ability to engage with and respond to their environment using movement related interventions to optimize functional capacity and performance.
Patient/Client Management

- Model and Process
- Pt/Clt Management
- Movement System

Guide to PT Practice 3rd Ed.

Professional Implications: Managing the Movement System

- An expert is required...
  - Knowledge of Movement System structures and functions is gained through a lengthy and specialized education described by established standards
  - That knowledge defines the scope of the practitioners’ expertise and indicates when the services are necessary
  - Only a PEER Expert can judge the appropriateness of the care provided (Ethical and Practice Standards)
  - To perform ongoing research that identifies the System parameters of ‘Normal and Abnormal’ for individuals across the Lifespan and validates diagnostic and management techniques

Physical Therapist Practice

- “Physical therapy is a dynamic profession with an established theoretical and scientific base and widespread clinical applications in the restoration, maintenance, and promotion of optimal physical function. Physical therapists are health care professionals who help individuals maintain, restore, and improve movement, activity, and functioning, thereby enabling optimal performance and enhancing health, well-being, and quality of life....”

Guide to Physical Therapist Practice 3rd Ed.
We’ve Discussed Why and What…

The human movement system comprises the anatomic structures and physiologic functions that interact to move the body or its component parts.

*Human movement is a complex behavior within a specific context.*

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Recognition, Identification & Documentation

- Here are some questions you may be asking?
  - Are we inventing a, ‘System’ that doesn’t exist?
  - Are we recognizing/describing a ‘System’ that does exist?
  - What methods should be used to define the System?
  - What terms should be used to describe the System?
  - Should we rely on existing constructs? Which ones?
  - How can this effort contribute to the growth and development of our science and practice in useful and meaningful ways?

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Movement System Practice

*Examination of the Movement System*

- **History** (patient specific data related to the individual and their current condition)
- **Systems Review** (standard data collection to determine which components of the Movement System need further assessment)
- **Tests and Measures** (23 categories of Tests and Measures identified by PTs as appropriate for diagnosing presence/severity of Movement System disorders)
Patient History

- General Demographics
- Social History
- Employment/Work
- Growth and Development
- Living Environment
- General Health Status
- Social Health habits
- Family History
- Medical/Surgical History
- Current Condition/Chief Complaint
- Functional Status/Activity Level
- Medications
- Other Clinical Tests

Human movement is a complex behavior within a specific context.

Systems Review

- CVP: HR, BP, RR, Edema
- Integ: texture, scar, color, integ
- MSK: ROM, strength, symmetry, hgl, wgt
- NMS: Gross coordinated movement, (balance, locomotion, transfers, transitions), Motor Function (Planning and Learning)
- Communication, Affect, Cognition, Language, Learning Style

Human movement is a complex behavior within a specific context.

What About Movement Assessment?

- Observation: Specific Screening eg. Posture, age related movement
- Palpation: capsular pattern, end feel?
- Local Anatomic Movement: @ the joint, limb segment?
- Total Body Movement: sit to stand, gait?
- Task Related Movement: lifting, carrying?
- Should there be a standardized Movement screen/exam/report for every patient/client?
Experts Diagnosing Abnormal Human Movement…
• Presumes we can identify ‘normal movement/movement patterns/movement related responses’ across the lifespan allowing us to rule in/rule out ‘Movement System Disorders’

• Presumes we can reliably and validly examine patients to identify/diagnose ‘abnormal movement/movement patterns/movement related responses’ to classify and label them with recognized diagnostic terms

What’s the Point?
• How will this change PT Today…. …or Tomorrow?
  • Documentation
  • Billing
  • Payment
  • Patient Choice
  • Referrals
  • Research Funding

You/We Create Change
• As Clinicians
• As Educators
• As Researchers

• What can you do to make a difference?
References


- Norton BJ. “Harnessing our collective professional power”: Diagnosis dialog. Phys Ther. 2007;87(6):635-64.