The Role of the Physical Therapist in the Prevention and Treatment of Chronic Pain

David Browder, PT, DPT, OCS

Texas Physical Therapy Specialists

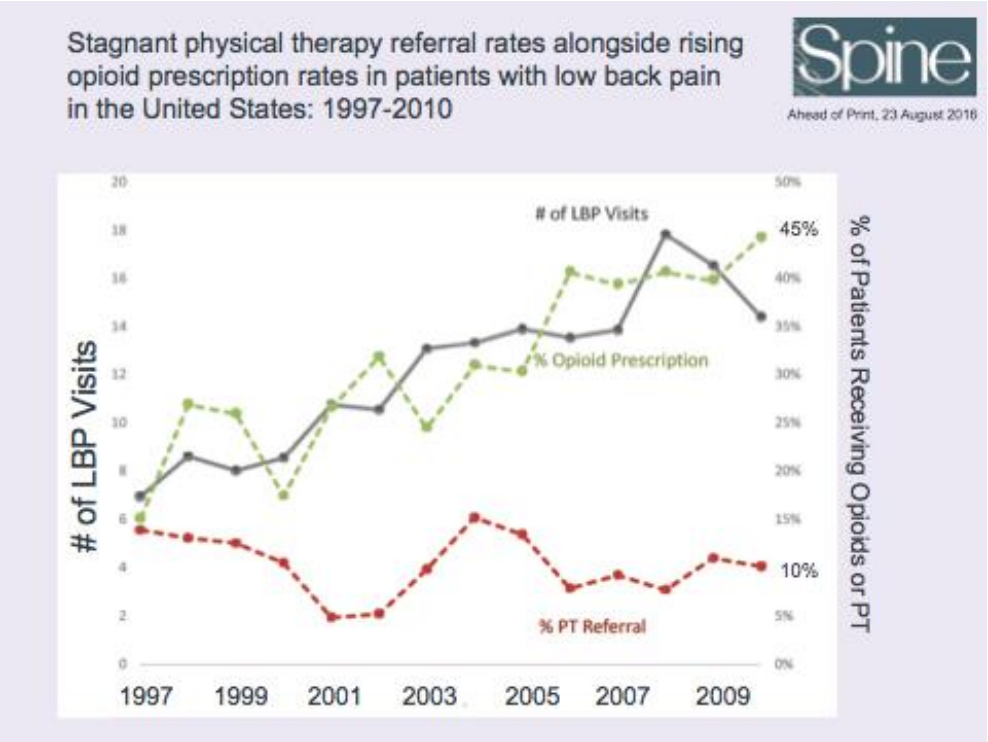
Who Are Physical Therapists?

"Physical therapists (PTs) are highly-educated, licensed health care professionals who can help patients reduce pain and improve or restore mobility - in many cases without expensive surgery and often reducing the need for long-term use of prescription medications and their side effects." (APTA)

- Doctors of Physical Therapy (3 year graduate school)
- Focused on improving movement and function
- Spend 45-60 minutes with patients, often multiple times/week
- National average is 10 visits per condition

PT is grossly underutilized for LBP

- 170 million visits
- 10% referred to PT by PCP
- Lower referral rates if:
  - Insured by Medicaid
  - Insured by Medicare



Relationship of Opioid Prescriptions to Physical Therapy Referral and Participation for Medicaid Patients with New-Onset Low Back Pain

Anne Thackeray, PhD, Rachel Hess, MD, Josette Dorius, RN, Darrel Brodke, MD, and Julie Fritz, PhD

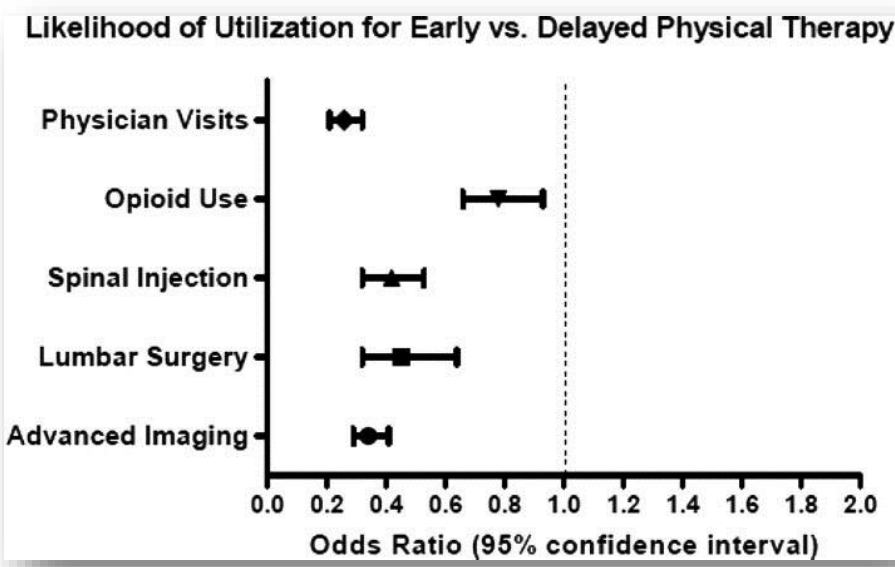
- JABFM. Nov-Dec 2017.
- 1 year retrospective cohort study. 454 Medicaid patients with new onset low back pain.
  - 47% received a consult to PT.
  - 19% participated in PT.
- Odds of receiving an opioid Rx in the following year decreased in either case.
- If there was a referral to specialty care or advanced imaging the odds of referral were 25X less.
- " Providing a PT consult in place of an opioid prescription is a reasonable alternate strategy for pain management and improved function, particularly in this population of Medicaid enrollees."

Primary care referral of patients with low back pain to physical therapy: impact on future health care utilization and costs.

JM Fritz, JD Childs, RS Wainner, TW Flynn. 2012. SPINE Volume 37, Number 25

- 32,070 patients, retrospective
- 7% utilized physical therapy
- Early physical therapy timing (<14 days) was associated with:
  - Decreased risk of
    - Advanced imaging (OR = 0.34)
    - Additional physician visits (OR = 0.26)
    - Surgery (OR = 0.45)
    - Injections (OR = 0.42)
    - Opioid Medications

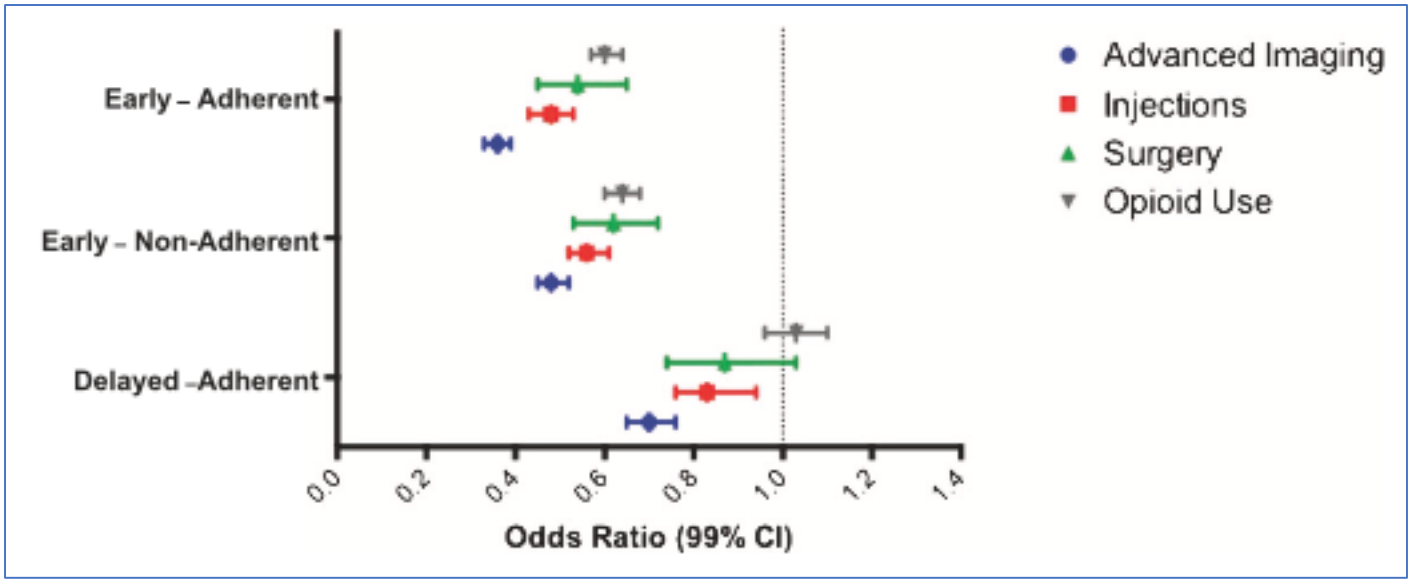
Total medical costs for LBP were $2736.23 lower for patients receiving early physical therapy.



Implications of Early and Guideline Adherent Physical Therapy

- 753,450 patients with LBP visiting primary care
  - 112,723 patients with LBP referred to PT (16% utilization)
- Early PT < 14 days: Less imaging, injections, surgery or opioid use
- PT Guideline Adherence: Even Less imaging, spinal injections and spine surgery
- LBP related costs were $1,202 lower compared to delayed

Childs JD. Implications of early and guideline adherent physical therapy for low back pain on utilization and costs. *BMC Health Services Research 2015 15:1*. 2015;15(1):1-10.



Guideline Adherent Physical Therapy

- Evidence Based - Active
  - Therapeutic Exercise
  - Neuromuscular Reeducation
  - Manual Therapy/manipulation as an adjunct (particularly early)

- Not Evidence Based - Passive
  - Ultrasound
  - Heat packs
  - Traction
  - Modalities
  - Manual Therapy alone (particularly late)

A variety of treatment options for LBP

- Trunk coordination, strengthening and endurance exercises
- Centralization and Directional Preference exercises and procedures
- Flexion Exercises
- Manual Therapy/Manipulation
- Progressive endurance exercise and fitness activities
- Patient Education and Counseling

Physical therapy – a profession, not a ‘treatment’.

- 'Evaluate and Treat’
- Early referral
- Acute – pain relief, reassurance, hurt vs. harm, prevent recurrence
- Chronic – remove barriers to exercise, supervised return to activity
- ‘Addressing the problem’
- Avoidance of interventions that harm

Integrating a biopsychosocial component

Fear-Avoidance Model of Chronic Pain

Adapted from " Fear avoidance and its consequences in musculoskeletal pain: A state of the art, " by J. W. Vlaeyen and S. J. Linton, 2000, Pain, 85, p. 329

What is PNE?

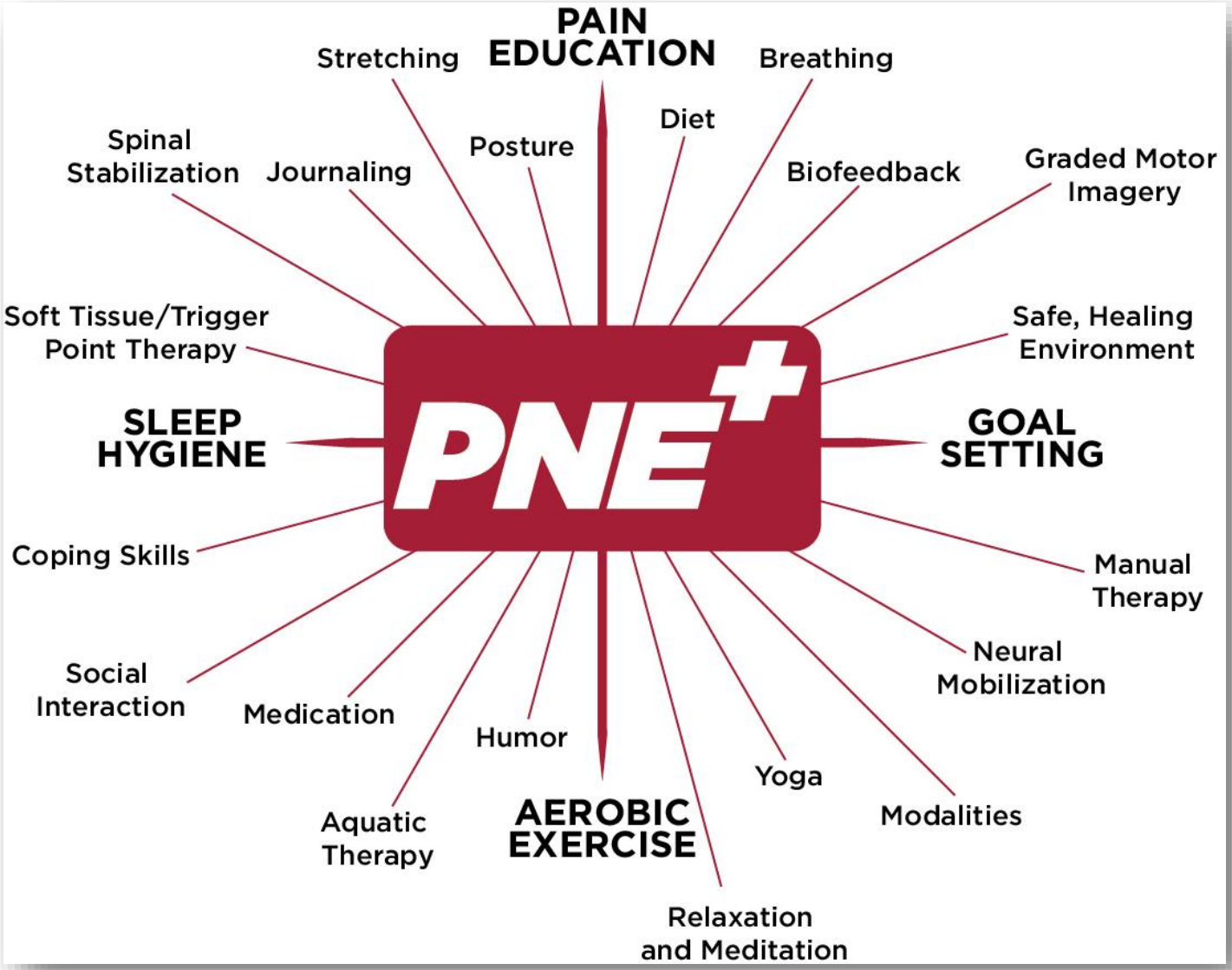


Image courtesy of Adriaan Louw with permission

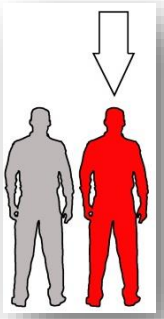
Chronic Pain patients and Pain Neuroscience Education

- Review of 6 RCTs
- “For chronic MSK pain disorders, there is compelling evidence that an educational strategy addressing neurophysiology and neurobiology of pain can have a positive effect on pain, disability, catastrophization, and physical performance”

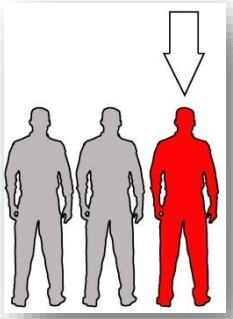
Louw A, Diener I, Butler DS, Puentedura EJ. The effect of neuroscience education on pain, disability, anxiety, and stress in chronic musculoskeletal pain. *Archives of physical medicine and rehabilitation.* Dec 2011;92(12):2041-2056.

For chronic low back pain, the numbers needed to treat (NNT) for physical therapy and PNE:

- Function 2:1



- Pain 3:1



Moseley L. Combined physiotherapy and education is efficacious for chronic low back pain. *Aust J Physiother.* 2002;48(4):297-302.

Louw A, Diener I, Landers MR, Puentedura EJ. Preoperative Pain Neuroscience Education for Lumbar Radiculopathy: A Multicenter Randomized Controlled Trial With 1-Year Follow-up. Spine. Aug 15 2014;39(18):1449-1457.

Decoding Physical Therapists

- American Board of Physical Therapy Specialists (~7% of PTs)
  - Orthopedic Certified Specialist (OCS)
  - Sports Certified Specialist (SCS)

- Residency
- Fellowship

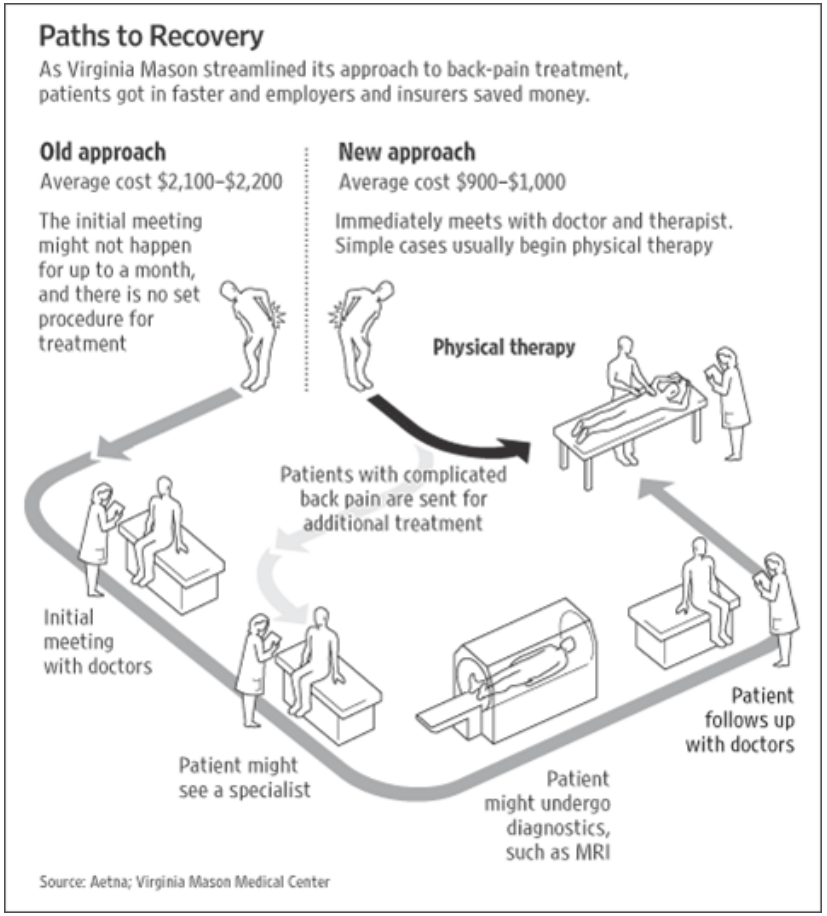
- Can the patient be seen quickly (24-48 hours)?
- A combination of manual therapy and exercise?

Barriers

- Consumer may not be informed about the benefits of physical therapy
- Variation in practice pattern
- Physical therapy is not the “quick fix”
- Insurance barriers, cost to patients
- Access – particularly in Medicaid and underinsured populations

2004 Virginia Mason/Aetna and Starbucks Case Study

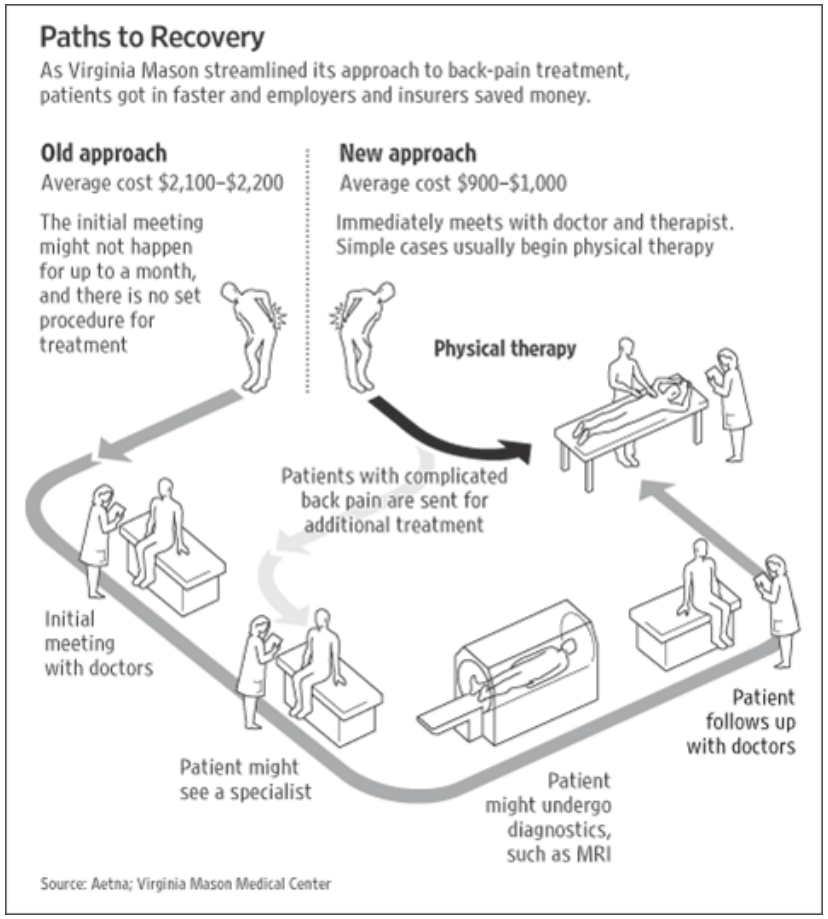
- Access to PT shortened from 31 to 1 days
- Prescription medication not needed in 75% of cases
- Savings of >$1,000 per case (55% reduction)
- 1/3 fewer diagnostic images
- 91% patient satisfaction (much improved)
- 67% fewer missed work days



Transforming Health Care: Virginia Mason Medical Center's Pursuit of the Perfect Patient Experience, 2008. CRC Press

(Not) Direct Access

- 6 states limit patient access to physical therapists.
  - Alabama
  - Illinois
  - Mississippi
  - Missouri
  - Wyoming
  - Texas



Medicaid and under-insured patients

- Expand networks beyond traditional hospital based providers
- Metric: Access for new patients vs. number of providers
- Increasing PT access decreases opioid Rx and downstream cost
- Our experience with the Travis County Medical Access Program

Thank you for inviting us to the conversation.

David@TexPTS.com

TEXAS
PHYSICAL THERAPY
SPECIALISTS