Manipulation Safety & Physical Therapist Practice

The Background, the Debate & the Evidence

Background

Manipulation techniques are manual (hands on) skilled passive movement treatment techniques used by Physical Therapists, Physicians, Osteopaths and Chiropractors. Manipulation was first used in health care by Hippocrates (460-355 B.C.), the Father of Medicine1; Physical therapists (PTs) in the US have used manipulation and other manual techniques since the profession was established in the US in the 1920s.2 European physical therapists have used manipulation since the 1800s.2 Training in manipulation (thrust & non thrust) is a required component of entry level physical therapist education programs in the US.3 Some PTs complete Residency and Fellowship programs that provide advanced training in manipulation techniques. Residencies & Fellowships are a part of the post-professional physical therapy education system, consistent with how advanced specialty training occurs in other health professions. For PTs, manipulation is one of many treatment techniques used to address a variety of muscle and joint conditions.

The Debate

Manipulation, particularly thrust joint manipulation (TJM), has for decades been the center of legislative turf battles led by the chiropractic profession against the physical therapy profession to attempt to restrict the use of manipulation by physical therapists. Chiropractors argue that physical therapists are not trained to practice TJM; Chiropractors also claim that manipulation provided by PTs place the public at risk for serious injury. Evidence strongly refutes BOTH of these charges. A Chiropractic publication implies that the legislative war being waged against physical therapists’ use of manipulation is based on an economic agenda.4 Evidence also shows a very low probability that Physical Therapists who use TJM will cause harm; the vast majority of serious complications from Manipulation are NOT caused by physical therapists (Table 1).5,6,7,8,9

![Bar chart showing the percentage of TJM complications due to chiropractors versus the percentage of TJM complications due to physical therapists.](chart.png)

Table 1: Percentage of TJM complications due to chiropractors versus the percentage of TJM complications due to physical therapists (Study 1, Study 2, Study 3, Study 4). Average of the 4 studies shows that 68% of TJM complications are due to chiropractic, 11% are due to PT, and 21% are due to other practitioners.

Terminology

Mobilization/Manipulation - skilled passive movements to the joints and/or related soft tissues that are applied at varying speeds and amplitudes, including a small-velocity and high-amplitude therapeutic movement.10

Thrust joint manipulation (TJM) - high velocity, low amplitude therapeutic movements within or at end range of motion11
The Facts

- Physical therapists in the US have used manipulation and other manual techniques since the profession began in the 1920s.
- Training in manipulation is required for all physical therapist education programs by national accreditation standards.
- Many governmental agencies (The Veterans Hospital Association, US Department of Health and Human Services, & the Virginia Board of Medicine) acknowledge that Manipulation, including TJM, is within the PT scope of practice.
- According to HPSO (largest liability insurance carrier for PTs in the US) there are no higher claims losses related to PT use of TJM than other PT treatment techniques.
- Published review of medical literature over a 77-year period found only 10 reports of cauda equina syndrome (a medical emergency lower spinal cord injury) after lower back TJM; none of those injuries were caused by PTs.

- Summary of scientific reports on TJM complications by profession (Table 1):
  * 61% of complications due to chiropractic and only 5% (12/220) due to PT.
  * 87% of complications due to chiropractors and only 6% (6/98) due to PT.
  * 70% of complications due to chiropractors and only 2% & no deaths due to PT.

- Manipulation Safety Study from New Zealand (Table 1):
  * more than one-half TJM complications (54%) caused by chiropractors (23/42)
  * only one-third (14/42) of all complications reported were result of PT treatments
  * one-tenth the number of practitioners (i.e. the number chiropractors compared to PTs in New Zealand) produced nearly twice (164%) as many complications.
- In the US, practicing PTs outnumber chiropractors by a 4 to 1 ratio.

The Bottom Line

Claims that the public is at risk when PTs use manipulation have no factual basis and are refuted by high level scientific studies and insurance reports. PTs are well trained to use manipulation including TJM. Attempts to limit PTs from using TJM appear to be based on economic concerns—not patient safety. PTs use a research based approach in the use of TJM that is proven to be both safe & effective; in fact, research indicates the best approach to many common painful conditions is using a combination of manipulation with exercise and other PT treatments.

References