

# The Improper Application of Manual Therapy Techniques and its Consequences

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Manual therapy is an umbrella word encompasses various techniques and hands on treatment for various conditions by different health care professionals including osteopaths, chiropractors and physical therapists. All the different clinicians have been contributed to the body of knowledge of manual therapy and clinicians are using the techniques developed by different professionals according to their scope of practice. The question arises that is manual therapy an effective tool to treat patients with musculoskeletal and neuromuscular disorders?

In the literature there is no high quality evidence for the effectiveness of manual therapy but most of the reviewed evidence ranked from low to moderate quality and inconsistent due to substantial methodological and clinical diversity.<sup>1</sup> Although manual therapy has a very old history; in Europe trace back to 400BCE. Manipulative therapy had developed parallel as alternate treatment approach where medical treatment was not effective especially in musculoskeletal and neuromuscular disorders. The formal use of manipulative therapy was started in 19<sup>th</sup> century by osteopath and chiropractic.<sup>2</sup> Later on the medical and osteopathic physicians introduced manual therapy to the physical therapy profession. Currently manual therapy is essential part of the physical therapy professional practice; legally accepted worldwide. One of the famous physicians by the name Wharton Hood who was trained under the guidance of a bonesetter claimed for the first time that manipulation is safe as well as effective. He published a technical manual on manipulation of the extremities in 1871 in the lancet. The Founder Orthopedics Robert Jones also supported manipulative therapy. He wrote, "We should mend our ways rather than abuse the unqualified. Dramatic success in their hands should cause us to

enquire as to the reason. It is not wise or dignified to waste of time denouncing their mistakes, for we cannot hide the fact that their successes are our failures".<sup>3</sup>

The concept of manual therapy in today's physical therapy practice is considered to be a manual force applied by the physical therapist accurately determined and specifically directed to the body for the purpose of modulating pain; increasing range of motion (ROM); reducing or eliminating soft tissue inflammation; inducing relaxation; improving contractile and non-contractile tissue repair, extensibility, and/or stability; facilitating movement; and improving function. The effectiveness of spinal manipulation and mobilization has been evaluated in the following conditions and found to be effective including acute, sub-acute, and chronic low back pain; migraine and cervicogenic headache; cervicogenic dizziness in adults 'several extremity joint conditions; and acute/sub-acute neck pain.

Manual therapy in Pakistan is a new emerging specialty in the physical therapy profession but still in infancy stage. The formal MS OMPT degree program was started by Riphah International University in 2012 and since then producing qualified manual therapists. There are multiple concepts and approaches are being practiced in the country but few experienced certified clinicians are available and most of the manual therapists are novice clinicians. There are three main areas of manual therapy, mobilization, manipulation and therapeutic massage. The physical therapists mainly practice manipulation and mobilization which are highly skillful interventions and need to be applied after thorough assessment. The frequency, indications and contraindications of manipulation and mobilization are very important. The clinicians should be aware of the consequences if not

properly applied. Although it is mentioned in the literature that manual therapy techniques are safe but due to improper use the following could be the consequences;

If the patient suffers from VBA, any cervical manipulation should not be performed otherwise there is a potential risk of a stroke. In the presence of aneurysms an improper maneuver can cause an aortic aneurysm to rupture, particularly an abdominal aortic aneurysm. Patients with bone tumors, bone infection, inflammatory arthropathies will never be manipulated that can create functional instabilities, dislocation, subluxation and ligaments rupture.<sup>4</sup> Manipulation and mobilization in children should not be encouraged especially children below 14 years at high risk for subluxation of the C1, C2 due to the dense not being completely developed during cervical manipulation also joint cartilage and growth plate can be damaged too. Manual therapy done incorrectly could increase the patient's hypermobility and multi-directional instability. Although the use of manual therapy techniques especially mobilization and manipulation is not proved to be contraindicated for the children but still the clinicians should be very cautious if they decide to

perform mobilization or manipulation for the children 14 years or below.<sup>5</sup>

In Pakistan since this is a new emerging specialty and most of the clinicians are novice practitioners, so a standard protocol for the manual therapy practice is a dire need in the country that this valuable method of treatment will be used for the benefit of the people not harms them.

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## References

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