Manip Like a Girl...
Work Smarter, Not Harder

Presented by:
Stacy Soappman, PT, DSc, FAAOMPT
- Denver, CO
- NAIOMT faculty

This handout a combination of work taken from NAIOMTs Manip Like a Girl Course as well as an adaptation of a presentation by Ann Porter-Hoke PT, DPT, OCS, FCAMPT, FAAOMPT and Stacy Soappman that was given at the AAOMPT 2015 conference.

Manipulation - Clinical utilization?

Review of systematic reviews 1980-2011 of spinal manipulation (SM)
- DC, DO and PTs are most likely to deliver SM, often in conjunction with other conservative therapies
- Back and neck pain were the most frequent indications for SM
- Patient satisfaction with SM is high


- 87% of PTS felt academically prepared to utilize manipulation in the clinical setting
- Low utilization in clinical internships by PTS
  - 50% reported some utilization of spinal manip; peripheral manipulation essentially zero if utilized
  - 74% utilized manipulation if CI used manips
  - 28% utilized manipulation if CI didn’t use manips

Sharma & Sabus (2012) N=48 surveys
Manipulation - Clinical utilization?

“I was successful with manipulation on my lab partners in PT school... but I am unable to successfully translate that skill to my patient population in the clinic.”

“It hurts my hand to do thoracic manips, so I only do them on small patients.”

Manipulation – doing it well

Components
- Preload force
- Time to peak force
- Peak force
- General arm-body coordination
- Consistency

Errors
- Inaccurate moments (vectors)
- Too low preload force
- Too long to peak force
- Reduced pre-load force before peak force = “back off barrier”
- Too high/low peak force

What goes wrong?
- Practitioner too small &/or patient too large
- Practitioner’s physical limitations that limit effective delivery
- Practitioner inexperience with selected technique

Gibbons & Tehan, 2009
Molloy, personal 2010

Manipulation - Clinical utilization?

What goes wrong?
- Bed – too high
- Patient – too far away
- Trying to manipulate with fingers and wrists
- Using small or slow muscles
- Lack of core control/stability
- Feet or center of force facing wrong direction!

Hartman 1997, 2013, O'Grady 2000
**Technique Tips: Speed Drills**

Practice, practice, practice the psychomotor skills

- Toilet Paper
  - Rip off one piece of the roll at a time
- Bananas
  - Snap banana in half (with peel still on!)
- "Air-manip"
- Etc....

© O’Grady W

**Why do we lock?**

- Focus forces
- Channel forces
- Minimize manipulative thrust
- To ensure the safety of irritable or unsound segments

©

**General Rules**

- You can lock through a hypermobility
- You cannot lock through an instability
- You cannot lever though an instability

©

**Neutral Flexion Locking**

- Ceiling side arm grips the table
- PT pulls the table side arm straight out – parallel to the floor
- Flex the legs up to and into the segment you are trying to lock

©
Neutral Extension Locking

- Ceiling side arm is behind the body
- PT pulls the table side arm up towards the ceiling
- Extend the legs up to and into the segment you are trying to lock

Neutral Rotation Locking

- Ceiling side arm is parallel with the pt’s body
- PT pulls the pt’s arm up at a 45degree angle bisecting the flexion and extension vector
- Use the legs to place the segment you are trying to lock into a neutral position.

Lumbar Safety Check

- UMN testing: clonus, Hoffman, Babinski = should be absent
- Reflexes = should be normal or hyporeflexic
- Muscle testing to rule out fatiguing weakness
- The patient also needs to have a negative pre-manipulative hold before proceeding with a manipulation.

Technique Tips: elbow – elbow

Lumbar Spine
Most of work done through your arms (elbows/forearms)
- Stand TALL
- Compress
- Vector to the joint
- Use towel roll/bed to facilitate flexion/opening technique
Technique Tips: Roll patient/sacrum towards you – don’t manip “uphill”

Technique Tips: and you don’t need to look at it!

CT Junction Technique
• If you cannot get your arms to the back of their lower neck — then grasp onto their forearms but be careful to grip across and/or support their wrists
• Squeeze their thorax and avoid cervical flexion

CT Junction Technique
• If the seated technique is not possible - then trying it in supine
• Use lumbrical grip to thoracic laminae and transverse processes
• Traction is a quick shoulder extension action action
Thoracic Safety Check

At the very minimum the safety tests that should be performed are:

- Slump Test = should be negative
- UMN testing – Babinski, clonus, hoffmans = should be absent
- Reflexes = should be normal or hyporeflexic
- The patient also needs to have a negative pre-manipulative hold before proceeding with a manipulation.

Technique Tips

Upper thoracic

- Patient assists with a hip/bridge lift which will provide better upper thoracic transverse process contact and easier to generate a pre-manip loading force
Technique tips: Thoracic supine

Alternate technique for larger patient/smaller PT and less anterior chest contact

Avoid hyperextending the thoracic segment!

Technique Tips: Thoracic ¾ supine

If patient’s back is broader than your arm – use a ¾ turn and a prop, i.e. a wedge to bring the bed closer to your posterior wrist.

The manip force is through their elbows and chest to the posterior thoracic contact point.

Technique tips: thoracic - seated

Use towel to distance & focus forces – avoids frontal contact

In Summary... take home

• Size up your patient
• Apply physics/vectors
• Facilitate your fast and large muscles
• Stop thinking ... just go with the movement
• Time your breathing
• . ..and stand tall
In Summary... take home

Resources

• O’Grady W., Puencedura E. “The practical guide of safe and effective thrust manipulation” 2015 *In press*