7 Ways to Measure Massage Interventions

Massage therapists have often used adjectives such as “tight”, “ropey”, “leathery” in describing soft-tissue in its pathophysiologic state. It is challenging for us to transform the kinaesthetic to the verbal. However, these textural adjectives are hard to qualify objectively when changes occur due to therapeutic intervention. In an environment where, more and more, insurance and healthcare funders will pay only for evidence-based interventions, massage therapists need to measure, record and relate objective findings that clearly show benefit from massage therapeutic intervention.

More clinically-inclined therapists will rely on orthopaedic assessment as the “gold standard” of objective findings. It’s been my experience, particularly as a DAC (designated assessment centre) assessor in a team-based assessment setting that orthopaedic assessment is useful but limited in developing the full symptom picture. Massage therapists need methods to measure change from their therapeutic interventions…methods that are widely accepted and recognized, as well as easy to measure and record. Good news! There are at least seven assessment tools you can use effectively and in a time efficient manner.

Postural Assessment
Postural assessment shows us how the body is negotiating with gravity every day. The more distorted the posture, the more body energy wasted and the potential for pathology to creep in. Three basic measurements will likely tell us 90% of the information we need to know about postural distortions. By measuring the shoulder and pelvic girdles for superior / inferior position (sagittal axis), tilt position (coronal axis) or torsion (vertical axis) we can, by association, discern whether the involved muscles are ideal, shortened-contracted or lengthened-strained.

Without sufficient practice, massage therapists may lose postural assessment skills, even though these findings can be significant to the case. I encourage you to practice with your patients and colleagues, and get your postural assessment down to 60 seconds or less. This invaluable tool will show you symptom relationships you otherwise would have missed.

Range of Motion
Measuring change in range of motion pre- and post- treatment can be one of the most effective ways to measure your results. Whether you measure degrees of motion by sight, by device — i.e. goniometer — or by a three point scale (mild, moderate or severe limitation in movement), your assessment technique must be standardized to produce reliable results.

Normal active ranges of motion (ROM) for the cervical spine are illustrated in the accompanying diagram. Examine the various ranges that can be initiated actively, passively and against resistance.
If you do not work with auto insurance or Worker’s Compensation (WSIB) claims, or you are not competent using degree measurements, you may consider a three-point scale to measure mild, moderate or severe restriction in range of motion.

Be aware that, in case of an injury where there is a legal claim, your records could be audited and used in a legal proceeding. Therefore, the degrees method of measurement, commonly applied in orthopedics, physiotherapy and chiropractic, may be worth learning.

After a few practice sessions, you’ll be incorporating postural assessment and range of motion again in every treatment. These findings are invaluable to increasing your success for discovering the true cause of complex pain patterns.

**Muscle Testing**
Muscle or “motor” testing is effective in measuring nerve conduction/muscle recruitment and determining if there is a deficit. Simply applied, you ask the patient to resist a certain action, grade from 0-5 (no power to full power), and test the opposite side for comparison. Then repeat the test post therapeutic intervention.

Muscle testing is a great tool to show progress because the patient can clearly see and feel the difference in strength before the intervention and after. Results are clearly tangible and measurable, and applying this test will greatly increase your practice retention. Kendall’s *Muscle Testing and Function* is a great resource. Plan an assessment night with a few colleagues and begin to master muscle testing!

**Palpation**
In my opinion, massage therapists poorly value their palpation findings, regarding results only from “more objective” range-of-motion and orthopaedic testing. However, palpation in my experience is a wholly and effective method of discerning disease – and we can measure it objectively. By using the “four T’s” we learned in massage college - tension, texture, temperature and tenderness – and assigning a three-grade measure (mild, moderate or severe) we can turn “tight”, “ropey” and “leathery” into quantifiable findings.

Leon Chaitow, DO, ND, stated “There is no valid substitute for skilful palpatory diagnosis in ascertaining the relatively minute structural changes – primary or reflex – that often have far reaching effects on the body’s economy.” Massage therapists have developed keen palpation skills and can use these skills to qualify soft-tissue dysfunction as well as or perhaps better than other health disciplines.

**Visual Analog Scale / Numeric Pain Scale**
This measure is very simple and easy to apply. “If 0 was the absence of pain and 10 was terrible, excruciating pain, what number would you assign to the pain you’re feeling”. Take this measure before and after your intervention to assess change and record this
measure in your notes. You and the patient will be able to see change by the reduction in the pain scale over the progression of treatments.

**Orthopedic / Neurologic Testing**

Orthopedic / neurologic testing is well accepted standardized testing that will provide very useful information, albeit incomplete from a soft-tissue perspective. I won’t speak extensively of orthopaedic testing here because the reader is likely familiar with it, but I recommend orthopedic texts such as MaGee as an excellent reference. Use orthopaedic assessment in addition to postural assessment, range-of-motion and palpation to gain a more complete clinical picture.

**Pain Questionnaires**

Pain and disability questionnaires — such as Vernon-Mior (neck disability) and Oswestry (lower back disability) — query the subjective perceptions of the patient to arrive at a disability ‘score’. The questionnaires are invaluable to understanding the patient’s perception of pain, showing progress (or lack of) over time, and substantiating results. They are especially useful in qualifying pain and progression to third party payers, as in the case of auto insurance claims for soft-tissue injury.

In each questionnaire there are 10 questions, categorized in areas of pain perception, personal care, sleeping, etc. Each question asks the patient to state which of the six responses to each of the ten questions is as close to their perceived level of pain / disability as possible. The six questions basically query a range from zero symptoms to excruciating, debilitating pain.

Each of the six responses has a numerical value: the first response values at 0 and the sixth response 5. You can only mark one response per categorical question, leading to a maximum score of 50 for answering all ten questions and a minimum score of zero.

Once the patient responds to all ten categorical questions, you tally the results (based on the values 0 to 5 assigned) and double the score to gain a percentage – for example 78% disability score. You now have a starting point to gage response to treatment over time. Have the patient complete the questionnaire again after 4 to 6 treatments to determine if, in their perception, progress is being made.

Following are other indices available on-line that can be helpful:

1. McGill Pain Questionnaire (Short-form):
   [http://www.med.umich.edu/obgyn/repro-endo/Lebovicresearch/PainSurvey.pdf](http://www.med.umich.edu/obgyn/repro-endo/Lebovicresearch/PainSurvey.pdf)
2. Disabilities of the Arm, Shoulder and Hand (DASH)
   [http://www.dash.iwh.on.ca/conditions.htm](http://www.dash.iwh.on.ca/conditions.htm)
3. Roland-Morris Low Back Disability Index
   [http://www.wsib.on.ca/wsib/website.nsf/LookupFiles/DownloadableFileALBImeasurement.pdf](http://www.wsib.on.ca/wsib/website.nsf/LookupFiles/DownloadableFileALBImeasurement.pdf)
Be sure to look at Wikipedia’s extensive listing of various pain / disability questionnaires at [http://en.wikipedia.org/wiki/Pain_scale#_note-0](http://en.wikipedia.org/wiki/Pain_scale#_note-0)

In closing, I hope this article improves the reader’s confidence and repertoire of effective ways to measure the results of massage therapy intervention. Remember… the more you measure, the better you can substantiate progress!

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