Procedural Teaching Pearls in Osteopathic Manipulative Medicine: Beyond “See One, Do One and Teach One.”

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The participant will be able to:

- List core concepts in successfully teaching procedural skills
- Discuss unique considerations in procedural skill acquisition when applied to Neuromusculoskeletal Medicine/Osteopathic Manipulative Medicine.
- Describe specific teaching techniques to improve the learner’s ability to understand specific Osteopathic Manipulative Techniques.
Still’s frustration

- A. T. Still founded the American School of Osteopathy in 1892.
- He died in 1917.
- By about 1900, his original techniques were only being learned by a few students.
- By 1915, they were not being taught at the ASO.
- See one, do one, teach one didn’t perpetuate them.
Didactic years: First, learn the techniques

- **Outcome:**
  - Tell them what they are expected to learn.

- **Process:**
  - Tell them how they are expected to learn it.
  - Teach or provide materials to support the learning process.

- **Assessment:**
  - Tell them how they’ll be tested.
  - Test them as they have been told they will be tested.
Psychomotor skills require practice

- Psychomotor education is not the same as cognitive education
- Three domains of education:
  - Cognitive
  - Affective
  - Psychomotor
  - Equivalent to knowledge, attitudes, skills
- Medical students matriculate based on cognitive skills.
Clinicians and biomedical scientists are *content experts* as opposed to education *process experts*

Process experts use terms unfamiliar to many new higher level educators
- Criterion referenced testing
- Norm referenced testing
- Mastery test
- High stakes tests
Norm vs. Criterion Referenced Tests

Norm referenced test
- Ranking
- Did the examinee do better or worse than others?
- Differentiates between best and worst students
- Focus: Questions answered correctly by the best students / incorrectly by the worst students

Criterion referenced test
- Mastery of specific material
- Did the examinee answer the questions correctly?
- Actual achievement level
- Focus: Questions correctly answered by students who know the material
- Standards-based (what they should know)
Mastery test

- Not all criterion referenced tests have a cutscore
- Cutscore: student passes if score exceeds cutscore, fails if it doesn’t
- Criterion is not the cutscore
  - Criterion is the domain of knowledge the student is expected to have mastered
- A score may simply indicate the student’s standing in the domain being tested
Clinical Skills Assessment Examinations

- Used in clinical situations to evaluate ability to perform clinical skills, protocols or procedures

- Comprised of elements that collectively define competence for particular skills or abilities

- Critical elements are single, discrete, observable behaviors which are obligatory for whatever specific competencies are being tested

- Performance tests may or may not have cutscores
  - Cutscore: 70%, 80%, 90% may be a cutscore for passing
  - Critical elements/actions: Any critical element missing or poorly executed may cause failure
  - Works best if criteria are published and practiced in advance
Criterion referenced psychomotor performance test

- Psychomotor domain
- Measures against a set standard (criterion)
  - Speed
  - Precision
  - Distance
  - Simple or complex gestures
  - In or out of sequence (may be specified)
  - Procedures/Techniques being executed
High Stakes Testing

- High stakes test
  - Results have important implications

- COMLEX: must pass to gain licensure

- The actual practice of osteopathic medicine

- Each patient is a high stakes test
Question #1

What does it take to successfully teach procedural skills?
A Simple Five Step Method for Teaching Clinical Skills [George, Doto]

- Based on ATLS Model

1. Overview
2. Silent Demonstration
3. Repeat the process with detailed description
4. Student talks through the skill
5. Student performs the skill while being carefully observed with feedback and coaching as needed
If the students are having problems...

- Discussion
If the students are having problems...

- Learner trait ability
- Inadequate/inappropriate task description/demonstration
- Imprinting of previous incorrect or obsolete performance
- Improper correction or reinforcement
- Affective factors
- Inadequate learner perception of performance

A Simple Five Step Method for Teaching Clinical Skills [George, Doto]
Question #2a

What are the unique considerations in procedural skill acquisition when applied to Neuromusculoskeletal Medicine / Osteopathic Manipulative Medicine?

From the perspective of the learner
Question #2b

What are the unique considerations in procedural skill acquisition when applied to Neuromusculoskeletal Medicine / Osteopathic Manipulative Medicine?

From the perspective of the teacher
Question #3

How do you implement specific teaching techniques to improve the learner’s ability to understand specific Osteopathic Manipulative Techniques?
Begin with the end in mind. What is the desired outcome?

- What is your final goal?
- What’s required to meet accreditation standards?
  - Evaluation and feedback
  - Formative and summative assessment

- How do I do these?
  - Formative procedural testing (safe)
    - Criterion referenced performance assessment
    - Feedback to student
  - Summative assessment (do or die)
How do I do this?

- What is the responsibly of the teaching role?
- We need to develop learners that adopt critical thinking.
  - Reinforce
  - Evaluation & Feedback
    - Formative [safe]
    - Summative [documentation]
Develop a competent osteopathic physician who can appropriately diagnose and apply OMT with insight into how OP&P impacts that clinical situation.
AOA program requirements for curriculum and evaluation tools in OP&P/OMM/OMT.

- Demonstrate
- Promote
- Teach
- Evaluate
Role of Instructor

We must go beyond just demonstrating a technique to our learners.

We must strive to impress on our learners how OMT impacts the patient.
Getting beyond the technique-1

- Describe the philosophy behind osteopathic manipulative treatment.
- Ask why!
- Probe for supporting evidence
  - [5 Minute Preceptor Model]
The 5 steps of the One Minute Osteopathic Preceptor

- Commitment from the learner
- Probe for supporting evidence
- Teach General Rules
- Reinforce what was done correctly
- Correct Mistakes

- What
- Why
- How they think
- Do this again
- Don’t do this
Getting beyond the technique-2

- Have the learner describe the role of the musculoskeletal system in health & disease

Examples include:
- somato/visceral reflexes,
- alterations in body framework, and
- trauma.
Getting beyond the technique-3

■ First Tier:
  o “Please describe the indications & contraindications to OMT.”

■ Beyond “indications”:
  o “Why is this OMT technique indicated in this clinical setting?”
  o “Why would another modality not be indicated?”

■ Beyond “contraindications”:
  o “Is there truly an absolute contraindication to using OMT to treat this clinical condition?”
Getting beyond the technique-4

Discuss multiple OMT methods:

- Can this clinical situation allow the utilization of multiple OMT methods?
- Why? Why not?
- What if the learner is resistant to using a specific modality?
Getting beyond the technique-5

- Did the learner document in the medical record, his/her use of osteopathic principles and osteopathic manipulative treatment?
- Why? Why not?
Does the learner demonstrate the medical knowledge of the use of OMT in such conditions as, (but not limited to) respiratory, cardiac, and gastrointestinal disorders, as well as musculoskeletal disorders?

Why? Why not?
Getting beyond the technique-7

- OP&P/OMM/OMT: EVALUATION
  - Are you as the teacher ensuring that there is an ongoing evaluation of the knowledge and skills of each learner?
  - How do we make sure this is measurable?
  - Is the learner keeping a log of each procedure performed?
Reviewed core concepts in successfully teaching procedural skills

Discussed unique considerations in procedural skill acquisition when applied to Neuromuscular Medicine/OMM.

Implemented specific teaching techniques to improve the learner’s ability to understand specific Osteopathic Manipulative Techniques.
If circumstances limit their therapeutic modalities and isolate them from the many effective remedies of this medical era, they still have their hands, which by their talented maneuvers can return structural integrity and physiological stability to perverted tissues--
...for theirs are the hands of an osteopathic physician.

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