

# H.O.T. in the Clinical Skills Exam

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# What is a Clinical Skill Competency Exam?

- Clinical skill competency examination (practical exam) is a hands-on experience of a real or simulated scenario
- Apply their knowledge of:
  - diagnostic findings, anatomy, physiology of the area
  - potential motions that occur at the site of dysfunction
  - disease implications or complications
- Use their understanding to examine, diagnose & treat

# Outcome

- The student must be able to effectively explain the diagnosis and treatment of a particular body region and the related neurologic, autonomic and orthopedic concepts and manipulative techniques
- Clinical competencies may be comprehensive of any/all of the diagnostic & treatment skills taught in prior sessions

## How it's been tested in the past

- Student & partner enter the exam room (PTR)
- Examiner provides instruction on area to be examined
- Student examines the area selected and finds the most significant dysfunction in that location.
- Examiner checks the student's findings
- Student may be asked to select a treatment and explain the reason for their choice.
- Examiner may select a specific treatment and request further information about the technique
- Student does the treatment and rechecks for change
- Examiner rechecks the dysfunction and evaluates the amount of change

# How we changed the testing to involve Higher Order Thinking

- The section of the OMM 3 course on the Respiratory System was used.
- Students were advised that the exam would incorporate materials learned in both the respiratory systems classes & the clinical medicine courses in addition to the material covered in the OMM lectures & physician training room (PTR) sessions.
- Case scenarios were to be used for each respiratory disease taught in that section.



Demonstrates

evaluate

apply

create

# The Clinical Competency

- Students entered the examining room in pairs
- The first student was given a case scenario to read
- The student acting as the doctor was then asked to explain what equipment they would require to complete their physical examination.
- They were then asked to examine the patient and explain what they were looking at and for during their evaluation.
- Examination of the patient had to include a structural examination which was uniquely osteopathic (TART changes, exam of related areas, ROM, etc)

# The Clinical Competency

- The patient was then evaluated by the examiner for somatic dysfunctions which might be commonly found with this probable diagnosis. If none were found then the student was asked to simulate treatment of those areas which could be expected for this diagnosis.
- The student then treated the patient with the osteopathic manipulative techniques they had learned for the particular diagnosis being treated and provided a plan for what medical, pharmacological or other treatment they would incorporate for this patient's problem.
- The patient was then re-evaluated.
- The patient then became the doctor with a different case scenario.

## Otitis Media-

Young adult patient presented in your office c/o L/R ear pain and difficulty hearing for 3 days. They note some drainage in the back of the throat. Where would you evaluate and how would you treat with OMT. Why would you treat there?

Evaluate the ear, neck and upper cervicals (look for tart changes, check range of motion)

Tx: open thoracic duct (THE drain), any ear technique (decrease congestion, improve flow), Galbreath mnvr (open the eustachian tube), hyoid release (decrease cough and help drain retropharyngeal areas), OA decompression or upper cervical (balance sympathetics), upper thorax, JSCS for lat pterygoid drain the venous congestion), milking or kneading ant cervicals (drains lymphatics) or facial effleurage (parasympathetics)

Or

Adult patient who flies/swims frequently presents in your office c/o decreased hearing and pain in the areas around their ears. Where would you evaluate and how would you treat with OMT.

Why would you treat there?

## Sinusitis

Young adult patient (adjust for age of student being treated), c/o pain under the eyes on their cheeks, cough and a slight sore throat for several days. OR

c/o pain above or behind their eyes, clear nasal discharge and some throat irritation, & cough.

Where would you evaluate **Area of pain: TART changes, back of head & upper neck for autonomics, thoracic inlet (lymphatics), ears, nose (congestion, drainage)**

How would you treat with OMT and why. **Open thoracic inlet, address the autonomics (facial effleurage)**

**OA decompression, any upper cervical tx, upper thorax, (above eyes tx ethmoid &/or nasal bones), Hyoid for cough, ant cervical nodes or JSCS to lat pterygoid (drain pre 7 post auricular nodes)**

# What was different?

- Inclusion of the material taught in other system classes.
- Inclusion of the 'how to' material taught in clinical medicine classes.
- Expectations of student's ability to:
  - correctly identify the equipment needed to complete the examination.
  - recognize/identify the usual physical findings.
  - evaluate for somatic dysfunctions using uniquely osteopathic methods.
  - correlate an appropriate overall medical treatment plan which included an appropriate osteopathic manipulative treatment plan.

# Then

- Completion of the appropriate osteopathic manipulative techniques.
- They were able to:

‘Put It All Together’

# Outcome

- Student satisfaction was very high for this exam as reported by the students.
- 174 of 176 students were able to pass this competency successfully the first time.
- The 2 students who were unsuccessful passed on re-examination.

# Other HOT techniques we have introduced this academic year

- i-clicker assessment
  - At the start of each PTR session the second year students were presented with a 3 item assessment which was reflective of the materials which had been posted on the website in preparation for the laboratory session.
    - These were called: readiness assessment measurements: RAMs
    - 3 multiple choice questions were presented
    - 4 points were given for each correct answer
    - Correct answers were reviewed at the end of each RAM
  - Attendance was also taken in this fashion

# i-clicker success

- Good student participation
- Helped ensure readiness for the session that immediately followed
- Students were willing to participate despite some reliability concerns

# I-clicker problems

- Receiver for the i-clicker signal was located in one room on the opposite side of the hallway and students were signaling from 5 rooms in different directions through multiple walls and hallways.
- Not all signals got through to the receiver and so were not recorded.
- Students failed to bring their i-clickers.
- I-clickers failed during the quiz.

# I-clicker problems

- Students borrowed other students i-clickers which then recorded the grade to someone else.
- Students borrowed faculty i-clickers and didn't provide their info to the faculty member.
- In the end we were forced to give all the students in attendance all the points as the reliability of the recorded information was questionable.
- We anticipate resolution of these problems with the new location for the PTR ( in the MET)
- CLD & IT are investigating a new i-clicker APP for the i-phone

# I-clicker in the classroom

- Case scenarios were presented during lectures or reviews.
- Questions were then presented and a timed response was allowed.
- The selections were then displayed.
- Students were then asked to defend their choices.
- Some i-clicker quizzes were given at the end of MLM or PLM lectures which reflected the material which had just been presented and were recorded for a grade.
- These were done in a single room with better signal reception.
- Overall, this technology benefitted students active learning

# Small Group Teaching

- There were 176 students in the second year class.
- We taught 88 students in each of two groups on Wednesday afternoons 1-3 pm and 3-5 pm.
- The class was distributed between 5 faculty members at 16 or 18 in each group.
- The faculty was then able to teach the assigned materials and techniques to their individual small group.
- More personal, one on one/pair interaction was enabled.
  - This benefited both the student and the facilitator
- The students were able to ask more questions and get individual feedback in this situation.

# Team Teaching

- Utilized in the MLM, PLM, CIL presentations.
- Dr. Hensel (OMM) & Dr Dayberry (Clin Med)
  - Co-presented a Low Back MLM
- MSS first year course-SAGE section: Dr Davanloo (IM) & Dr McCarty:
  - Information on how as osteopathic physicians we can utilize our manipulative skills to increase the senior patient's ROM, personal safety & quality of life.
  - Dr. Williams of our OMM department also developed a structural exam presentation for the SAGE group (Year I)
    - Checklist
    - Video

# Team Teaching

- Utilized in Lower Extremity section:
- Drs. Stockard & Mason:
  - Combination of OMM & Ortho
    - supplied information:
      - anatomy
      - ROM
      - common injuries
    - examination procedures
    - manipulative techniques.

# Greatest Accomplishment

- **Syllabus**

- Broad but all inclusive information
- Multiple changes by the administration
- Plan to increase each semester the value of the “hands on” experience gained in PTR sessions

- **Challenges:** Things that affected grading

- Scheduling changes secondary to weather
- Gain of full of i-clicker points by everyone
- Changes in the number of MLM/PLM lectures



.....opportunity

# In all of the varying ways,

- encouraged interaction with the students
- assessed their level of knowledge
- correlated the systems courses
- described the skills acquired in clinical medicine
- encouraged development of a complete treatment plan
- required demonstration of their level of skill & competency gained in osteopathic manipulative medicine



Change is an opportunity for growth