The Design and Implementation of an OMM Mini-CEX

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Disclosure

This study was supported by a grant from the American Association of Colleges of Osteopathic Medicine and the Osteopathic Heritage Foundation. We receive no financial gain from the products described in this presentation.
Session Objectives

1. Describe the design of a direct observation evaluation tool to assess the osteopathic manipulative treatment competency of family medicine residents
2. Discuss the implementation of the OMM Mini-CEX in a family medicine residency program
3. Review the results of a research project to study the perceived effectiveness of the OMM Mini-CEX amongst residents and faculty in a family medicine residency program
The Wright Center for Graduate Medical Education Background

- 40 year old independent, not-for-profit ACGME/AOA accredited sponsoring institution, based in Scranton, PA
  - ACGME and AOA accredited residencies for IM and FM
  - ACGME and AOA accredited Cardiology & Geriatric Fellowships
  - ACGME accredited Psychiatry residency
- Largest THCGME funded Consortium in United States
- The first recognized THC for Internal Medicine
- The first National Network crossing multiple states
- Instrumental in organizing the THCs via the American Association of Teaching Health Centers (AATHC)
ATSU/SOMA- WRIGHT CENTER COLLABORATION

ATSU Mission Statement
• A.T. Still University of Health Sciences serves as a learning-centered university dedicated to preparing highly-competent professionals through innovative academic programs with a commitment to continue its osteopathic heritage and its focus on whole person healthcare, scholarship, community health, interprofessional education, diversity, and underserved populations.

SOMA Mission Statement
• To prepare excellent osteopathic physicians to serve the health care needs of society through high-quality undergraduate and graduate medical education programs.

ATSU Vision Statement
• To be the preeminent University for health professions

Wright Center Mission Statement
• The mission of The Wright Center is to continuously improve education and patient care in a collaborative spirit to enhance outcomes, access and affordability.

Wright Center Vision Statement
• The Wright Center will integrate patient care delivery, workforce development and innovation to be the leading model of health care in America by 2017.
National Family Medicine Residency

Overview

• The Wright Center-National Family Medicine (TWC-NFM) program est. in July, 2013 with 22 FM residents in 6 different CHC’s across the country;
• Residents match to a single site, all training takes place there
• Teaching Health Center (THC), ATSU-SOMA and Still OPTI are academic partners with faculty, staff & resources
• HRSA funded
• AOA accredited
• ACGME continuing pre-accreditation
Wright Center National Family Medicine Residency

- Partnership with TWC, ATSU-SOMA, Still OPTI and FQHCs in 6 states
- 22 accredited slots per year
  - 29 funded per year
- AY 2015-16 Class Sizes
  - OGME 3 – 22
  - OGME 2 – 20
  - OGME 1 – 18
  60 total
National Family Medicine Residency Affiliate Partners

www.thewrightcenter.org/nationalresidency
Research Study Background

AOA Core Competencies
• Osteopathic Philosophy and OMM
• Patient Care
• Medical Knowledge
• System-based Practice
• Practice-based Learning and Improvement
• Professionalism
• Interpersonal and Communication Skills

ACGME Core Competencies
• Patient Care
• Medical Knowledge
• Professionalism
• Interpersonal and Communication Skills
• Practice-based Learning and Improvement
• System-based Practice
Competency Assessment

• Multi-source feedback evaluations
• Oral questioning methods
• Case/procedure logs
• COMLEX, USMLE
• In-service Exam, In-training Exam
• Simulation (standardized patients, OSCE)
• Audit of clinical practice
• Direct observation tools
Mini-Clinical Examination Exercise (Mini-CEX)

- The Mini-CEX is a direct observation tool whereby the assessor observes a trainee during a single clinical experience and then provides immediate feedback on the trainee’s performance
- Observation, evaluation, feedback can be completed in 15-20 minutes
- Validated as a useful formative assessment tool\(^1\)
- Originally developed to assess IM residents, adapted for clinical competency assessment by other specialties\(^2-5\)
- No OMM Mini-CEX reported in literature
## Mini-Clinical Evaluation Exercise (CEX)

**Evaluator:** ___________________________  **Date:** ___________________________

**Resident:** ___________________________  ○ R-1  ○ R-2  ○ R-3

**Patient Problem/Dx:** ___________________________

**Setting:**  ○ Ambulatory  ○ In-patient  ○ ED  ○ Other  ○ Follow-up

**Patient:**  Age: ___________________________  Sex: ___________________________  ○ New  ○ Follow-up

**Complexity:**  ○ Low  ○ Moderate  ○ High

**Focus:**  ○ Data Gathering  ○ Diagnosis  ○ Therapy  ○ Counseling

### 1. Medical Interviewing Skills (○ Not observed)

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### 3. Humanistic Qualities/Professionalsm

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### 4. Clinical Judgment (○ Not observed)

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### 5. Counseling Skills (○ Not observed)

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### 6. Organization/Efficiency (○ Not observed)

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### 7. Overall Clinical Competence (○ Not observed)

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**Mini-CEX Time:**  Observing: _______ Mins  Providing Feedback: _______ Mins

**Evaluator Satisfaction with Mini-CEX**

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**Resident Satisfaction with Mini-CEX**

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**Comments:**

__________________________

__________________________

**Resident Signature**  **Evaluator Signature**
OMM Mini-CEX Development

- TWC was an early adopter of milestone-based evaluations
- TWC was already using Mini-CEXs to evaluate key clinical skills of FM and IM residents
- No OMM Mini-CEX available
- GME research team at ATSU created the OMM Mini-CEX following a similar structure as TWC’s other Mini-CEXs
  - PD created first draft → reviewed by SOMA and NFM OMM faculty for validation of relevant content
Osteopathic Manipulative Medicine Mini-CEX (V.2) (Clinical Evaluation Exercise)

Practice-based Learning and Improvement
- Resident solicited and responded welcomingly and productively to feedback from the patient and members of the health care team.

Professionalism
- Resident demonstrated respect for the patient, with adherence to ethical principles.

System-Based Practices
- Resident accurately described how to document somatic dysfunction in the medical record, including appropriate OMT coding.

Overall Clinical Competence
- Resident demonstrated competency in diagnostic skills, medical knowledge, and osteopathic manipulative treatment.

EVALUATOR Satisfaction with Mini-CEX

LOW 1 2 3 4 5 6 7 8 9

RESIDENT Satisfation with Mini-CEX

LOW 1 2 3 4 5 6 7 8 9

Comments (Please write about Strengths, Weaknesses and Areas for Improvement):

By Signing below you acknowledge that you as the attending provided direct feedback on this evaluation.

Evaluator Signature:

Developed by ATSU-SOMA for use by WCGME National Family Medicine Residency. Permission granted to use for educational purposes.
The purpose of this study was to investigate the use and perceived effectiveness of the Osteopathic Manipulative Medicine (OMM) Mini-Clinical Examination Exercise (Mini-CEX) tool in assessing OMM competency in an osteopathic family medicine residency program.

Criteria for good assessment include:
- Faculty and learners should understand the purpose of the assessment
- Faculty should receive training in assessment
- Quality of assessments should be analyzed
Study Design

• Program Director provided training to faculty and residents on purpose and use
• Required use of OMM Mini-CEX at least once/6 months
• Surveyed faculty and residents about perceived effectiveness
  1. After 1st six months of use
  2. After next 6 months of use
• Analyzed survey data
Research question

Do family medicine residents and their OMM preceptors find the OMM Mini-CEX to be an effective tool for assessing OMM competency?

Short answer=yes
Survey design

• Short Likert-item survey developed and approved by IRB, with 5 choices: SD, D, Un, A, SA
• 2 questions on the purpose and usefulness of a mini-CEX in general
• 4 questions on the use of OMM mini-CEX, including to assess core competencies
• Survey response rate from 12/15/15 to 1/15/16:
  86% of residents, n=50
  67% of OMM preceptors, n=4
• High reliability in effectiveness construct Likert-items in both groups, (all Cronbach’s alphas >0.926)
Bar graph of effectiveness by question or core competency

OMM mini-CEX Survey

General use of Mini-CEX

- Understand purpose
- Useful for residency training

Specific use of the TWC OMM Mini-CEX

- Comfortable
- Useful Feedback
- Overall Effective*

Specific use of the TWC OMM Mini-CEX

- Professionalism*
- Patient Care & Procedural skills*
- Interpersonal & Communication skills*
- Practice-based Learning & Improvement*
- Overall Competence*
- Medical Knowledge*
- System-based Practices*

*Effectiveness Construct

Percent Agreement

Strongly disagree • Disagree • Neutral • Agree • Strongly agree

Number of Responses
Survey results

• No significant difference between residents and preceptors responses
• 21 residents SD or D that general CEX are useful in training
• 9 residents did not use OMM mini-CEX yet (n=41)
• 45 respondents, significantly greater than unsure for perceived effectiveness on 5 pt scale
• Higher scores were associated with those who agreed on purpose, usefulness of a mini-CEX in general (n=20, median=4.0); vs lack of agreement or unsure of general usefulness (n=17, median=3.4)
• Second round of survey results yielded similar results but fewer respondents
Findings

• 2016 survey results indicate the perceived effectiveness in evaluating residents using OMM mini-CEX v.1 was 3.6 on 5 pt. scale

• Those that understood purpose & use of a mini-CEX in general, perceived greater effectiveness for the OMM Mini-CEX, vs those who disagreed or were unsure of usefulness

• OMM mini-CEX v. 1 was most effective in assessing patient care and professionalism, least effective in system-based practices (documentation & coding) & medical knowledge
Usage and feedback

• In fall of 2016, minor changes were made based upon survey results and to increase alignment with the new OR milestones; version 2 is currently in use
• Version 1 used 371 times in 2015-2016
• Version 2 started 1/1/17, used 41 times to date
• Resident feedback on v.1
  – “in my opinion, the OMM CEX is one of the better ones available. And one of the easiest to obtain”
  – “most residents view the CEX’s as busy work, . . .the OMM one is one of the more useful ones”
  – “I would have liked more feedback from my OMM preceptor but I like being evaluated to help know how I am doing”
Lessons learned

• Provide training on the purpose and use of mini-CEX to residents and preceptors; podcast, online tutorials, being considered for our program

• Mini-CEX were perceived by some as busy work; too long, or not focused. We are reviewing all of our mini-CEX for QI

• Consider timing and survey fatigue when surveying residents
Future Use and Development

• Evaluation of osteopathic medical students
• Best practices for Osteopathic Recognition under SAS
• Share OMM mini-CEX with other programs
• Publish article on OMM mini-CEX
Questions?

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References


