Research Curriculum at KCUMB-COM

Kevin D. Treffer, D.O.
Director of Osteopathic Clinical Skills
OMM Coordinator
KCUMB-COM
Background Information

- Section Components
  - Physical Diagnosis Skills
  - Communication Skills
    - Standardized Patient Program
    - Human Patient Simulator sessions
  - Manipulative Medicine Skills
  - Spirituality in Medicine
    - Lectures (5-6)
    - Round with a Hospital Chaplain
      - ½ day and fill out report of experience
Yearly Clinical Skills Exam (CSA)

- Year 1 – concentrates more on interview with limited exam inclusive of OMM evaluation and the documentation of the encounter
- Year 2 – Appears on the official transcript to show completion of an OSCE style exam (COCA requirement)
  - Pass/fail with 70% minimal competency

Numbers of students returning for remediation of COMLEX-PE was unacceptable.
Background Information

- Mid-Year Clinical Skills Exam for Year 2
  - Give the student experience at the process
  - Identify deficiencies for the student regarding skills
  - Allow time to work with students with problems during the spring semester prior to final CSA exam
- Buy in by Curriculum Counsel
- Started January 2010
- ECOP presentation by Des Anges Cruser, Ph.D on her project on Research module
  - Impetus for a change the week’s plan
  - Also from input from ECOP research subcommittee
Lifelong Learning Skill Needed

- Research topics disappeared from the curriculum
- Identify a need
  - Read and interpret a research article
  - Take the information from the page to the patient encounter
  - Apply the information to the management decisions for their patient.
Developing the Week’s Schedule

- Dean of Curriculum Charge
  - Use the time to meet needs in the curriculum
  - Must have offerings for all students
    - Fill the time
    - Avoid students getting uneven break time
- Midyear CSA first week back after Christmas Break
  - Officially school is back in session
- Each CSA takes 4 days to accomplish
- Leaves 1 full day without planned curricular offerings
Developing the Week’s Schedule

- Needed to plan for one day during the week
- Lots of time within the week to reach other issues of need
  - Needs also for practicing documentation skills
  - Research skills
  - Use some time for clinical application
  - Prepare for clinical rotations
    - Documentation and completion of H & P
    - Present & Participate at a Journal Clubs
<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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</thead>
<tbody>
<tr>
<td>1-4-11</td>
<td>Basic Epidemiology</td>
<td>CS A Group B</td>
<td>CSA Group D</td>
<td>CSA Group A</td>
<td>CSA Group C</td>
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<td>8:00</td>
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<tr>
<td>9:00</td>
<td>Research Design</td>
<td>Case 1 discussion</td>
<td>Case 2 discussion</td>
<td>Case 3 discussion</td>
<td>Case 4 discussion</td>
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<td>10:00</td>
<td>Research Statistics</td>
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<td>11:00</td>
<td>Interpret a study for Practice</td>
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<td>12:00</td>
<td>Lunch</td>
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<td>1:00</td>
<td>Take a question to manuscript</td>
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<td>2:00</td>
<td>Select Trials in OMM Research</td>
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Basic Epidemiology Objectives

1. To understand the concepts behind epidemiologic reasoning, disease outcomes and determinants of health
2. To be familiar with the sources of epidemiologic data
3. To be able to measure and differentiate disease incidence and prevalence
4. To understand the specialty of Preventive Medicine
5. Be familiar with the different levels of prevention
6. To know the contributions of epidemiology in the field of Medicine
Research Statistics

- Descriptive Statistics
  - Measures of central tendency
  - Distributions
  - Variability
  - Associations
  - Scales of measurement (handout)
Research Statistics

- Inferential Statistics
  - Samples vs. populations
  - Statistical significance
  - Inferential tests for common medical studies (handout)
    - Chi-square
    - t-tests
    - Analysis of variance
    - Logistic regression (not in handout)
Research Design

- Describe the most common types of research/studies in health science
- Describe the strengths and weaknesses of each type of research
- Describe how each type of research uniquely contributes to the body of health science knowledge
- Identify the characteristics of the various types of designs
Interpret a study for Practice

- To be able to identify the research question or the hypothesis to be tested in the manuscript
- To understand the type of study design used
- To understand what is meant be target population and study population
- To understand the statistical tests used and its significance
- To understand the difference between association and causality
- To be able to identify any flaws or biases in the manuscript
- To be able to judge the value of the manuscript and its clinical significance
Take a question to manuscript

At the completion of this session, students will be able to:

- Formulate a research question
- Identify the variables required to operationalize the study
- Describe the relationship between the literature and the research question(s)
- Identify and describe the components of a research proposal
- Identify the sections of a manuscript and relate the sections of the manuscript to the research proposal
- Identify the steps required to move from final paper to published manuscript
Select Trials in OMM Research

- Be able to state verbally and on a written examination:
  - 1. Examples of osteopathic manipulative medicine research since 2005.
  - 2. The results and conclusions of exemplary research studies.
  - 3. The strengths and limitations of each of the research studies.
Select Trials in OMM Research

This lecture will:

1. Review key research studies that will likely have an impact on professional and public policy and behavior.
2. Provide an overview of research at the national osteopathic research center in Texas.
3. Review example research studies from other professions that examine efficacy of manual treatments.
Assignments for the Week

- Complete the Research assessment tool for 2 assigned articles (6pts)
  - Knolls Article: Revisiting Castlio and Ferris-Swift’s Experiments on Direct Splenic Stimulation in Patients With Acute Infectious Disease
  - A Population-Based Survey of Complementary and Alternative Medicine Use in Men Recently Diagnosed With Prostate Cancer
- Each student is given a case from Med Cases (18 points)
  - Fill out a differential diagnosis
  - What images/labs/studies needed and what you expect to learn from the test
  - What structural findings would be expected in the patient presentation
  - Complete an full admit H&P and admit orders for the patient
Assignments for the Week

- Complete an On-Line Assessment covering material from the lectures (18 pts)
- Complete CITI training (6 points)
- Perform the CSA
  - 70 points is pass with >70%
  - 50 points if <70%
- Points are applied to the spring semester OCS section grade.
Assignments for the Week

- If CSA failed: Faculty meet with all students
  - Based on what area(s) they were weakest
    - Communication skills
    - Physical examination
    - OMM
    - Documentation
What’s Next?

- Need to assign faculty to review the documents
- Choose new articles so it is fresh each year.
- More evaluation in process
  - Await CQI evaluation for this semester