Since its inception in 2004, the Joan C. Edwards School of Medicine (JCESOM) has benefitted greatly from the education, innovation, and collaboration that the Academy of Medical Educators has produced. By providing our faculty and residents with a varied and wide range of knowledge and teaching resources, the academy has faithfully and consistently taken our educational program to new levels of excellence. Through activities like curricular interventions, peer-reviewed publications, and national and regional presentations, academy members continue to bring honor and recognition to our institution. We are now building upon our success, improving the academy’s structure to harness the input and experience of the growing membership.

These structural changes will bring new tools and skills to the teaching community for the medical school and the university as a whole. A graduated system of participation levels has been instituted encouraging junior and senior faculty participation. Criterion-based categories will be used for acceptance and advancement in academy membership.

The mission of the Academy of Medical Educators is to build excellence in teaching by supporting and nurturing pre-eminent medical educators, improving curriculum, and advancing educational scholarship. As a new class begins its training, I look forward to the inspired and imaginative projects of the academy. The implemented changes will augment the wonderful education that has been a staple at the Joan C. Edwards School of Medicine.

Adam M. Franks, M.D.
Chair, Academy of Medical Educators, JCESOM (2013)
2013 Academy Inductees

Master Teacher

Susan Jackman, Ph.D.,
Professor Biochemistry & Microbiology

Fellow

Michael A. Krasnow, D.O., Ph.D.
Professor of Ophthalmology

Associate

Sydnee McElroy, M.D.
Assistant Professor
Family Medicine

Saroj Sigdel, M.D.
Associate Professor
Anatomy & Pathology

Sona Shah, M.D.
Assistant Professor
Neuroscience

Terrence Julien, M.D.
Associate Professor
Neuroscience

Adrienne Mays, M.D.
Assistant Professor
Family Medicine

Jiang Liu, Ph.D.
Associate Professor
Pharmacology, Physiology & Toxicology

Russell Fry, M.D.
Assistant Professor
Ophthalmology

Protége

Mahshid Mohseni, MD
Internal Medicine
Mentor - Larry Dial, MD

Adam Alley, MD
Family Medicine
Mentor - Adam Franks, MD

Shelly Nickels, MD
Internal Medicine
Mentor - William A. Nitardy, MD

Ekong Uffort, MD
Surgery
Mentor - Gerald McKinney, MD

Jennifer Gerlach, MD
Pediatrics
Mentor - Sean Loudin, MD

Neha Goyal, MBBS
Internal Medicine
Mentor - Paulette Wehner, MD

Lisa Carey, DO
Med/peds
Mentor - William A. Nitardy, MDD

Marco Yung, MD
Surgery
Mentor - Gerald McKinney, MD

Muhammad Waqas,
MBBS (Fellow)
Cardiology
Mentor - Paulette Wehner, MD
Benefits of Academy Membership

The academy offers multiple opportunities to its members to achieve its mission and purpose. Members can take advantage of the professional development opportunities in educational scholarship and publication, become involved in the mentoring process, win rewards of recognition for teaching excellence, and apply for innovative Educational Project (iEP) funding.

Academy Educational Domains

1. Direct teaching
2. Curriculum development, instructional design, and assessment of student learning
3. Advising and mentoring
4. Leadership and service
5. Educational research, including patient QA/QI

Membership category

PROTÉGÉ
All residents, fellows, post-doctoral and doctoral students who are affiliated with the School of Medicine in good standing, and have faculty mentor.

ASSOCIATE
JCESOM Faculty who teaches a minimum of 10 hours per year and engaged in at least one educational domain.

FELLOW
Faculty who have demonstrated sustained involvement, engagement and evidence of excellence in at least one or two educational domains.

MASTER TEACHER
Faculty who have demonstrated sustained involvement, engagement, excellence and scholarly approach in more than three educational domains with at least one scholarly publications-disseminations.

EDUCATION SCHOLAR
JCESOM Faculty who have demonstrated sustained involvement, engagement, excellence and scholarly approach in more than three educational domains. Have a record of scholarly publications/presentations with regional, national, and/or international recognition as an educator.

GRADUATES OF THE ACADEMY

2004-2005
Master Educators
- David Denning, M.D.
- Brenda Dawley, M.D.
- Joe Evans, M.D.
- Vern Reichenbecher, Ph.D.
- Darshana Shah, Ph.D.
- Paulette Wehner, M.D.

Teaching Scholars
- Rafael Molina, M.D.
- Mehdi Ak-Hevan, M.D.
- Ben Allen, M.D.

2005-2006
Master Educators
- Adam Frank, M.D.
- Betts. A. Carpenter, M.D.
- Todd Green, Ph.D.
- Gerald McKinney, M.D.
- Mitch Charles, M.D.

Teaching Scholars
- Sarah Rinehart, M.D.
- H. Keblawi, M.D.
- Farid Mazaffari, M.D.

2006-2007
Master Educators
- Eduardo Pino, M.D.
- Mehiar O. El-Hamdani, M.D.
- William E. Triest, M.D.
- Chuck Clements, M.D.
- Bobby L. Miller, M.D.

Teaching Scholar:
- Matthew Weimer, M.D.

2007-2008
Master Educators
- Vincent Sollars, Ph.D.
- Anne Zappacosta, M.D.
- Mumtaz Zaman, M.D.
- Tracy L. Legrow, Psy.D.
- Chuck Giangarra, M.D.

Teaching Scholars
- Samar Abu-Sultaneh, M.D.
- Ben Mossavi, M.D.
- Karima Zwawi, M.D.
Assessing EBM knowledge of pediatric residents in West Virginia
Maria G. Lopez Marti, M.D.
Department of Pediatrics, Joan C. Edwards School of Medicine, Marshall University

Background: Evidence-based medicine (EBM) seeks to integrate the best research evidence with clinical expertise and patient values to optimize clinical outcomes for patients. EBM is considered the “new paradigm” in medicine, and the Accreditation Council for Graduate Medical Education (ACGME) has recognized the importance of EBM skills as core competencies for resident training. Overall, pediatric residencies tend to lag behind internal medicine in incorporating EBM into the curriculum. In this project, we sought to determine the baseline of pediatric residents’ EBM knowledge and to use that information as a valuable tool to design an integrated EBM-Pediatrics curriculum. The Fresno test of Evidence Based Medicine is a validated tool that has been used extensively to document EBM knowledge.

Goal: This study intends to investigate the baseline EBM knowledge of pediatric residents by administering a modified version of the Fresno test.

Methods: The Fresno test of Evidence Based Medicine consists of 12 questions and requires 30 minutes to complete, with a maximum score of 212 points. Due to time constraints, we designed a shortened version of this test, consisting of only 4 questions. The Marshall University Institutional Review Board approved this study. Residents were invited to participate in this activity voluntarily and anonymously during a noon conference session; they were allowed 10 minutes to take the test and then hand their written responses to the research team. Participant responses were evaluated using the grading rubrics provided by the UCSF-Fresno Medical Education tool.

Results: Eighteen of 24 (75%) residents participated in the baseline assessment of EBM knowledge. Residents from all three postgraduate levels participated: PGY-1 (n=5), PGY-2 (n=7) and PGY-3 (n=6). Our modified Fresno test included 4 questions, with a maximum score of 45 points. Responses were graded by the principal investigator according to the UCSF-Fresno Medical Education tool rubric. Scoring results are displayed in Table 1. Mean score for all participants was 14.2 points.

Table 1: Grading scores of residents' responses (out of 45 points)

<table>
<thead>
<tr>
<th></th>
<th>PGY1</th>
<th>PGY2</th>
<th>PGY3</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>10</td>
<td>16</td>
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<td>29</td>
<td>18</td>
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<td>11</td>
<td>26</td>
<td>10</td>
<td></td>
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<tr>
<td>10</td>
<td>15</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Kruskal-Wallis test, p-value: 0.86

Conclusion: This preliminary study, as a baseline analysis, shows that the EBM knowledge of our pediatric residents is low. The results reinforce the need to integrate EBM teaching into the pediatric residency curriculum. As expected, there were lower scores in the first years of residency in comparison to the more senior residents studied, but the difference was not statistically significant. Larger studies are needed to further depict the best educational methods needed to optimize EBM education in pediatric residency programs.

References:
Use of cognitive chunking to enhance pathology learning
Thomas Dougherty, M.D., and Darshana Shah, Ph.D.
Department of Anatomy and Pathology, Joan C. Edwards School of Medicine, Marshall University

Background: Preclinical years are challenging for most medical students. In order for students to learn and apply their preclinical knowledge, they must be motivated, actively engaged, and personally invested. Students are motivated when instruction includes a supportive learning environment and student-centered processes. Educators, in turn, engage and motivate students through challenging curriculum content delivered in an effective learning environment.

Goal: The study examined the use of cognitive chunking as a pedagogical tool for environmental pathology.

Chunking is a learning technique used most commonly to organize or classify large amounts of information, especially when there are no obvious patterns in the material. Chunking reduces and organizes the cognitive load as the learner processes information. Segments of material can then be reinforced using programmed learning techniques, such as question-answer sequences, which provide immediate feedback to the student.

Method: A self-learning module based on the concept of a cognitive chunking and using a programmed learning format was developed for environmental pathology. The module template was based on the format of Sidman and Sidman’s Neuroanatomy: A Programmed Text (1965), with modifications to include more information per frame. The material was broken into segments and followed an information-questions-answer sequence. 87 slides of information were matched with 113 question-and-answer slide pairs; each question-answer slide pair emphasized the material immediately prior and provided instant feedback. Questions incorporated fill-in-the-blank, true/false, and multiple-choice formats and ranged in difficulty from simple to challenging. A short survey was offered after completion. Student (N=28) comments on the self–learning chunking modules were thematically analyzed.

Results: The module was completed in 1, 2, or 3 hours by 9%, 40%, and 31% of students respectively. The majority (87.5%) of the students did not think there were too many questions. 96% found the module to be a meaningful learning exercise that kept the student engaged.

Several themes emerged after the qualitative analysis of the student comments. Students found the self-learning module helpful, effective, and engaging. The module also provided a built-in self-assessment, which helped students learn and understand the material. Students recommended that other topics be taught using the same self-learning chunking format.

Conclusion: Results indicate that the self-learning chunking module for environmental pathology was a useful learning exercise. The use of chunking, reinforced with immediate question-and-answer feedback, helped build the students’ knowledge base and aided in the development of the critical thinking process. Students found the format engaging, which helped move information into long-term memory through repetition without monotony.

References:
2. Miller G A. The magical number seven, plus or minus two: some limits on our capacity for processing information. Psychol Rev. 1956; 63:81–97.
A Failed Intervention for Perceived Lack of Efficacy in Physician to Physician Transition of Care: Investigation of the Underlying Challenges
Courtney Saunders, M.D., Farah Al-Khitan, M.D. and Dana Eilen, MD, Department of Cardiology, Marshall University, Joan C. Edwards School of Medicine

Background: Transition of care amongst a group of physicians during shift changes is an area of patient care vulnerable to medical error and resultant patient harm. Physicians are often charged as being the leader of the healthcare team, and hence a source of behaviors for other members of the healthcare team to observe and replicate. A previously performed study at our institution demonstrated that there was a multi-disciplinary perception of inadequate cardiology-fellow-to-cardiology-fellow transition of care. After this perception was identified, an electronic instrument was designed to facilitate transition of care. This instrument, constructed with the assistance of information technology personnel at our institution, was a patient list kept in table format. The tool was created to be compatible on any computer running a mainstream software internet browser. The tool was implemented, but after approximately one to two months, ceased being utilized by the cardiology fellows. Notably, 88% of fellows said they were either “very often” or “frequently” inadequately prepared to provide cross coverage. This paradox was perplexing as there was a clear need for improvement in the transition-of-care process; when a system was implemented to do so, however, it was not successful. Review of the literature does not reveal a previous evaluation of reasons for failure of physician-to-physician handoffs.

Goal: This study strived to understand why and how the tools failed and also to provide ideas for potential improvement and further awareness in physician-to-physician communication.

As this study was prompted by an unsuccessful attempt to implement a structured transition-of-care mechanism amongst fellows, it was deemed a priority to investigate the specific means of failure of this diligently developed tool. Through this evaluation, we hoped to gain insight into barriers to communication and transition of care among physicians.

Methods: Previously, an anonymous survey was conducted on the cardiology fellows, attending cardiologists, and nurses that work together throughout our teaching system. This survey was utilized to identify the lack of efficacy in the existing transition-of-care mechanisms. After this survey was performed, the aforementioned electronic tool was implemented and failed. In order to further assess this failure and the underlying reasons, all of the fellows who participated in this process were asked to share their reflections on why and how this system failed. Their comments were analyzed qualitatively in various themes.

Results: Nine of the eleven fellows involved in this process responded to this request, with one stating he was not involved sufficiently with the tool to fully assess its failure. The responding fellows each provided multiple suggestions as to the perceived obstacles in this process.

Some of the recurrent concepts described included the following: lack of enforcement by attending physicians, the cumbersome nature of the electronic tool, computer difficulties/malfunctions/inconsistencies, the time obligation necessary to maintain details of the lists, multiple hospitals, lack of universal involvement from all fellows, patient turnover/volume, and resistance to change/adding a new process that senior fellows had not been doing for most of their training.

Conclusion: Despite an inadequate transition of care as identified by all members of the healthcare team, including the fellows, the electronic tool provided as a solution failed. Many recurrent themes were noted in the fellows’ survey responses about the failure; the exploration and development of these themes could lead to a greater understanding of the obstacles regarding physician-to-physician communication, ultimately improving the transition-of-care process.
Improving resident attendance at pediatric teaching conferences
Baraa Alabd Alrazzak, M.D., and April Kilgore, M.D.
Department of Pediatrics, Joan C. Edwards School of Medicine, Marshall University

Background: Teaching conferences for pediatric residents create the backbone of medical knowledge that clinical experiences/rotations build upon. Teaching conferences are thus a critical component of resident medical education and are necessary for the development of competent, knowledgeable physicians. The Accreditation Council for Graduate Medical Education (ACGME) mandates regularly scheduled didactic conferences as “structured educational experiences.” Additionally, the ACGME requires programs to set reasonable attendance requirements for residents, document resident attendance, and ensure faculty participation. Prior studies have highlighted the challenges of ensuring these sessions are meaningful in their impact on resident education.

Goal: The purpose of this study was twofold: (1) to determine if blocking lectures improves resident attendance, verified by attendance records, and (2) to assess the impact of the new curriculum on resident perceptions and satisfaction of educational activities.

Methods: A retrospective review of resident attendance at teaching conferences was obtained from the administrative office of the Department of Pediatrics. The teaching conferences used two different schedules: The first schedule broke conferences into one-hour segments, meeting four times per week. The second schedule was a single three-hour block, held just once a week. Educational time during lectures was protected by requesting that attending physicians (1) dismiss residents on time regardless of the duties assigned to them and (2) manage all calls and patient-related duties during that time period.

The means were obtained in each group and compared using t-test. P value: 0.018 (statistically significant).

A total of 16 surveys were obtained and 15 residents (93%) agree/strongly agree that the block lecture format is better. Tables 2 and 3 illustrate responses to specific survey questions.

Table 1. Resident Conference Attendance

<table>
<thead>
<tr>
<th>Lecture Type</th>
<th>Daily lectures</th>
<th>Block lectures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents (n)</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Attendance (mean)</td>
<td>66.7%</td>
<td>79.08%</td>
</tr>
</tbody>
</table>

Table 2. Resident on time arrival

<table>
<thead>
<tr>
<th>Resident on time arrival</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-time arrival</td>
<td>-</td>
<td>1 (6%)</td>
<td>8 (50%)</td>
<td>7 (44%)</td>
</tr>
<tr>
<td>Protected time</td>
<td>-</td>
<td>-</td>
<td>5 (30%)</td>
<td>11 (70%)</td>
</tr>
</tbody>
</table>

Table 3: Block lecture- Resident satisfaction

<table>
<thead>
<tr>
<th>Block Lectures</th>
<th>Disagree/strongly disagree</th>
<th>Neutral</th>
<th>Agree/strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improves clinical knowledge</td>
<td>-</td>
<td>5 (30%)</td>
<td>1 (70%)</td>
</tr>
<tr>
<td>Better than daily lectures</td>
<td>-</td>
<td>1 (6%)</td>
<td>15 (94%)</td>
</tr>
<tr>
<td>Too long (3 hours)</td>
<td>14 (88%)</td>
<td>2 (12%)</td>
<td>-</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>-</td>
<td>-</td>
<td>16 (100%)</td>
</tr>
<tr>
<td>Boring</td>
<td>14 (88%)</td>
<td>1 (6%)</td>
<td>1 (6%)</td>
</tr>
</tbody>
</table>

Conclusion: As teaching conferences play an important role in improving the medical education of residents, attendance of those conferences is essential. Pediatric teaching conferences using a blocked schedule show a marked improvement in resident attendance and satisfaction when compared to a daily-lecture schedule.
SAVE THE DATE

Academy Educational Grand rounds:
January 24, 2014
March 28th, 2014

Academy Summer Symposium
May 23rd 2014