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Poster Abstracts

A Comparison of Attitudes Towards Influenza Vaccination in First-year Nursing and Medical Students

Maurice Kavanagh MEd; Kim Holka MSN, MSA, RN, APHN-BC CNE (Oakland University School of Nursing); Stephanie Swanberg, MSI, AHIP; Nelia Afonso, MD

OBJECTIVE: The objectives of the study were to: 1) Determine influenza vaccination rates among entering medical and nursing students for the year 2013; 2) Compare the attitudes of medical and nursing students towards influenza vaccination; 3) Compare the attitudes of vaccinated versus non-vaccinated students towards influenza vaccination. **METHODS:** Ninety-nine medical and 66 nursing students were surveyed in September 2013. Information on influenza risk perception and attitudes towards vaccination was collected via anonymous online surveys. **RESULTS:** The survey revealed 85 (51.5%) of students had been previously vaccinated. Of vaccinated students 92% had been recommended vaccination by their healthcare provider versus 51% of non-vaccinated students. With the exception of a higher average perceived risk of vaccination causing influenza among medical students, no significant differences between nursing and medical students were noted. More positive attitudes were observed in vaccinated students compared to non-vaccinated students, notably: importance of vaccination ($p<0.001$); need for annual vaccination of healthcare workers ($p<0.001$); recommendation of vaccine to family and friends ($p<0.001$). **CONCLUSION:** Although influenza vaccination is recommended, its coverage in entering medical and nursing students remains relatively low. Previously vaccinated students showed more positive overall perceptions of importance of vaccination versus non-vaccinated students. We believe that this perception of benefit is largely a result of greater knowledge augmented by personal experience. Additionally, the marked support shown by previously vaccinated students for recommending vaccination to friends and family may suggest an internalized, enduring confidence in the benefits of influenza vaccination.

☀ A Needs Assessment for Integrating Compassion into a Medical School Curriculum

Nicole Lederman, Class of 2015 MD Candidate; Tracy Wunderlich, MA; Nelia Afonso, MD

The purpose of this study is to qualitatively explore the concept of the compassionate physician through the use of focus groups and interviews. Developing and maintaining a sense of compassion throughout medical school is imperative to a medical student's development into a compassionate physician; physicians that are compassionate with their patients have increased satisfaction with their work, increased successes with patient compliance, develop better rapport with their patients, and are less likely to be sued. Medical students, standardized patients and physicians were requested to define the compassionate physician, consider whether or not compassion can be measured and/or taught, and asked to share stories in which physicians demonstrated behaviors that were consistent with compassion, genuine kindness and a sense of selflessness. Focus groups will be transcribed, and information obtained will be coded to identify qualitative themes amongst different groups with the end goal of creating an educational assessment tool to assess compassion in the preclinical years. I anticipate that the teaching of identified behaviors that are associated with compassion in the preclinical years will allow medical students to habitually incorporate these behaviors into their clinical practice while interacting with patients during their third and fourth years of medical school and as practicing physicians.

A Novel Educational Module for Subclavian Central Venous Catheter Placement Using Ultrasound Guidance

Andrew Bayci, MD; Jimmi Mangla, MD; Christina Jenkins, MD; James Robbins, MD, FACS; Felicia Ivascu, MD, FACS

Subclavian vein (SCV) central venous catheter (CVC) insertion is an important skill for healthcare providers. However, it is associated with potentially life-threatening complications, especially when performed by inexperienced operators. Increasing evidence supports a real-time ultrasound (US)-guided approach for SCV CVC insertion as compared to the traditional landmark approach. We developed a standardized curriculum including procedure-specific instructions, familiarization of US anatomy, and

simulated SCV CVC insertion using an anatomic model to teach safe and effective US-guided SCV CVC insertion. Seventy-seven individuals participated in an educational module that included a pre-test (evaluating baseline knowledge of US-guided SCV CVC insertion), pre-module confidence survey, multimedia presentation, practice session (US anatomy on live subjects and anatomic model-based SCV CVC insertion), videotaped hands-on testing session (model-based SCV CVC insertion), post-test, and post-module confidence survey. Of 77 participants, 70 completed a post-test with a median increase ($p < 0.0001$) in score of 5 points (out of 12) compared to the pre-test score. Confidence ratings assessed on a 5-point Likert scale demonstrated a significant increase ($p < 0.0001$) in confidence in SCV CVC placement in general, using the landmark technique, using US-guided technique, and in use of US to image the SCV. PGY 1 residents had lower mean global rating scores ($p = 0.010$) than any other participant group. This comprehensive hands-on teaching module-based curriculum provides necessary information and instruction to develop competence and confidence in US-guided SCV CVC insertion. This module can be implemented in simulation centers for teaching safe and successful SCV CVC insertion.

A Seamless Transition: Integration of Evidence-Based Principles in the Core Curriculum

John Falatko, DO; Alexandra Halalau MD, FACP

INTRODUCTION: Evidence Based Medicine (EBM) is the integration of clinical expertise, best available evidence, and patient values into patient care. The goal of EBM is to deliver safe, high quality care. The residents graduating from training programs are not comfortable appraising the medical literature due to a lack of standardized EBM training. **INTERVENTION:** We developed a longitudinal EBM curriculum that integrated five specific interventions: 1) Formal teaching of EBM fundamentals, 2) Hands-on EBM resources search sessions, 3) Standardized journal club appraisal process, 4) Standardized resident morning report presentations 5) Resident to resident teaching of study critical appraisal. **METHODS:** We aimed at evaluating EBM learning outcomes related to Kirkpatrick's Level 1 of Learning Evaluation - Reaction. A voluntary, anonymous, 24 question survey was distributed at the beginning and end of the academic year to all the residents. **RESULTS:** 16 residents completed the pre and post survey. Improvement in interpretation was reported for: General statistics 18.7%; RR and RRR 25%; Odds Ratio 18.8%; confidence intervals 25%; NNT 18.7%. Exposure to standardized appraisal forms increased by 32.2%, but comfort with appraising literature did not change. Comfort with application of literature to patient care improved by 12.5%. Satisfaction with the EBM curriculum improved by 12.5%. Unfortunately, none of the data points were statistically significant. **CONCLUSIONS:** The integration of the above EBM curriculum had little impact on the learner's reaction. For the future, our goal is to be able to show improvement in the Level 2 and 3, EBM knowledge, skills and changed behavior.

Beyond the USMLE Step 2CS – Preparing OUWB Students For Clinical Practice

Maurice Kavanagh, MEd; Lynda Misra, DO, FACP, MEd; David Rodgers, MD

As of 2004 all medical trainees entering practice in the United States are required to pass the three step United States Medical Licensing Examination (USMLE). Step 2CS (Clinical Skills) tests candidates on clinical skills and a selection of higher order thinking skills. The customary method for assessing clinical skills is the Objective Structured Clinical Examination (OSCE). The OSCE is a framework based on standardized patients (SPs), laypersons trained to simulate illnesses, whereby examinees rotate through a series of timed clinical encounters. Like many US medical schools, the OUWB clerkship curriculum relies on OSCEs for the core M3 clerkships Internal Medicine, Surgery, Family Medicine, Psychiatry, Pediatrics, Ob/Gyn, and Neurology, and a summative "gateway" OSCE at the end of the third year. For each of the core clerkship OSCEs students are presented with one to two cases, while the gateway presents an additional set of five to seven. Assessments on OSCEs are accomplished using SP completed behavioral checklists and by faculty review of student generated post encounter patient notes. In keeping with USMLE Step 2CS, all post encounter notes include documentation of patient history and where indicated, physical examination. All also require students to generate and defend a list of differential diagnoses, and to list indicated diagnostic studies. Unlike 2CS, most OUWB clerkship OSCE cases take the 2CS further by requiring students to interpret diagnostic study results and generate an

initial management plan. Details of the OUWB clerkship OSCE framework and how it compares to USMLE Step 2CS will be outlined.

Brain Awareness Week Pilot Program: Children's Educational Media in the Patient Care Setting

Imo Udo-Inyang, Class of 2016 MD Candidate; Douglas J. Gould, PhD; Rachel Yoskowitz, BSN, MPH

The Brain Awareness Week Committee at the Oakland University William Beaumont School of Medicine is a nascent student-run program dedicated to serving, educating, and inspiring our community. Our educational methods are based on the hypothesis that the strategies employed by children's educational media (e.g.: television programming) to teach foundational concepts unprecedented by prerequisite knowledge (e.g.: alphabet; counting) may be applied to the treatment setting in the context of neurological injury. Many patients recovering from stroke and other traumatic brain injuries experience neurological deficits in various functional areas such as language and motor skills; and the relearning of these functions is parallel to learning them for the first time as a child. Cognitive stimulation via entertainment is an integral component of children's educational media, suggesting that the more entertaining the learning context, the more intellectually stimulating and engaging, and therefore the more effective. Thus, as participation in the Dana Foundation's global Brain Awareness Week campaign, we launched a small pilot program in the Beaumont Hospital Stroke Unit where we engaged neuroscience patients in cognitively stimulating games and activities (e.g.: arts & crafts; Scrabble) that exercised their brains while providing meaningful interactions with medical students. Overall, our pilot program was educational and fun for patient and medical student participants alike, and we aim to further investigate the potential impact our educational methodology could have on patient care by expanding our program in the future.

Bullying Exposure and Impact During Graduate Medical Training

Marlene B. Seltzer, MD; Bella Schanzer, MD, MPH; Victoria C. Lucia, PhD

OBJECTIVE: Determine the prevalence of self-reported exposure to bullying and mistreatment in graduate medical training programs and understand characteristics and impact of bullying behavior on resident physicians and patient care. **METHODS:** An anonymous on-line survey was sent to 2500 physicians-in-training representing 265 accredited residency and fellowship programs in southeast Michigan. **RESULTS:** Of 249 respondents, 46.2% were victims of bullying, 50.4% were witnesses to bullying and 32.5% were both, in the past year. Female gender was associated with being a victim ($p=0.04$). The majority of victims (72.2%) and witnesses (86.0%) of bullying reported it was secondary to work-related issues. Victims reported bullying behavior by a more senior level provider ($p<0.001$). Exposure to bullying was associated with a self-reported decrease in self-esteem and increase in the use of alcohol and drugs ($p<0.01$). **CONCLUSIONS:** Bullying exists despite the increased focus on humanism in medicine and medical education. Bullying and mistreatment impact resident physician self-esteem and substance use.

Can Residents Be Taught To Teach Better?

Kathleen Dass, MD

As a large majority of time is spent working with medical students in various capacities, the Residents as Teachers (RAT) program offers residents formal training on the best methods to teach, supervise, and evaluate students over a span of ten seminars. Seminars range from preparing effective PowerPoints to dealing with challenging learners. Session four specifically focused on communication of goals, which was defined as the "establishment and explicit expression of a teacher's and/or learner's expectations for the learners." This lesson was helpful in reminding residents to reiterate the goals of the lesson before, during, and after a teaching session. Through the Residents as Teachers program, I have prepared more

successful and succinct didactic sessions. In this manner, I have been more effective in promoting understanding and retention, which was also the focus of the sixth seminar. Challenges remain as the lessons taught in the Residents as Teachers Program are only available to residents who sign up for the program. Further, with such a strong interest and many residents enrolled, presenters are not able to oversee all and aid in honing in the methods taught. Similar to teaching, the Residents as Teachers Program will continue to adjust and grow to accommodate the ever growing interest in medical education.

Determining Medical Students Perceptions of Perpetrators and Victims of Sexual Abuse

Danielle Rush, Class of 2016 MD Candidate; Judith Venuti, PhD; Diane Zalecki, RN

This study explored students' perceptions regarding perpetrators and victims of sexual abuse before and after an educational intervention presented by a forensic expert from the Haven Clinic*. The study was undertaken to determine how introducing a session into the Reproductive Organs System Course might influence student perceptions of these potential patients. Following an initial survey to assess students' knowledge and beliefs, a forensic expert delivered a session to the M2 students about victims of sexual abuse. The same survey was re-administered post-session. Data was analyzed to determine how individual responses changed between surveys. Students' responses were compared to those chosen by the forensic expert and the percentage of students' agreement with these choices before and after the session was determined. The pre-session survey was completed by 54 of the 74 M2 students; 42 students completed the post-session survey. Only 36 students completed both surveys. Initial analysis of student responses suggest that many of their initial perceptions were built on myths and misconceptions (based on the divergence of student choices from choices provided by the forensic expert). Although our statistical analysis is not completed, comparison of responses between pre- and post-session surveys suggests that the interventional session altered the choices of many students. The differences in responses to the pre and post-session surveys suggest that the information session helped dispel misperceptions among medical students regarding sexual abuse. Further statistical analysis will determine which perceptions were significantly altered to enable planning of more directed information sessions in the future. The intent is to create a sound curriculum that is designed to help narrow health professionals' knowledge gap regarding sexual abuse victims and their needs and will specifically address medical students' perceptions of these needs. (78)

* <https://www.haven-oakland.org/programs/shelter>

Evaluation of Tube Thoracostomy Teaching Models: An Argument for Developing Low-fidelity Simulators

Azmah Mohammed, MD; Christina Jenkins, MD; Jimmi Mangla, MD; Felicia Ivascu, MD; James Robbins, MD, FACS

INTRODUCTION: Surgical simulation provides trainees an opportunity to develop procedural skills prior to clinical interaction. Tube thoracostomy (TT) is an important surgical skill, and opportunities to learn can be limited. Our purpose was to evaluate the validity and costs of three different TT teaching models.

MATERIALS AND METHODS: The TT module included a pre-test, instructional video, hands-on skills lab with three models (low-fidelity rib model (LFRM), TraumaMan®, and cadaver), and a post-test.

Participants evaluated models in four categories: set-up confidence, performance confidence, applying procedural skills, and realism. **RESULTS:** Eighteen resident and attending physicians completed the module. The cohort consisted of 12 novices (<10 chest tubes) and 6 experts (>10 chest tubes). The cadaver received the highest rating in each category. All participants using the cadaver had confidence in set-up and performance, were able to apply procedural skills, and felt that the model was realistic. Only 66% of those using the LFRM felt it was realistic. However, 83% reported set-up confidence and were able to apply procedural skills; 75 % reported performance confidence. In contrast, TraumaMan® scored lowest overall. Absence of a realistic subcutaneous tissue layer was the most common reason for lower scores. Experts rated the LFRM and TraumaMan lower than cadavers in each category compared with

novices. DISCUSSION: A cadaver may be ideal with regards content validity for tube thoracostomy simulation but is cost prohibitive. LFRM provides effective training in TT placement in an economic fashion. Further work using larger cohorts is required to establish use of this technique.

Fostering Online Reflection and Collaboration – the Wiki way

Stephen Loftus, PhD

The abilities to reflect deeply on one's professional practice and to collaborate with others are important learning outcomes in higher education. These abilities can be fostered in the online environment by careful use of available tools such as wikis. This poster describes an approach to accomplishing these goals in a graduate course on professional education. The learning activity requires reflective writing on one's own educational or training experiences to be shared with the class via a wiki. Participants are then required to comment on, and respond to, each other's entries in light of the relevant literature. Students eventually select some of their contribution as an assignment, explaining how their contribution contributed to the quality of the online discussion and helped the learning of the whole group. It is made clear that marks are awarded for depth of insight and the ability to analyze the experiences of the class members in relation to the literature on higher education in general and professional education in particular. Having students make selections for their assignment encourages critical thinking and makes the marking easier for the examiner who does not have to read everything the students have written online.

Identifying Professionalism During Clerkships Using An Objective Structured Clinical Exam

Maurice Kavanagh, MEd; Sunitha Santhakumar, MD

Our study aims to determine if there are identifiable themes of professionalism in behavioral checklists completed by standardized patients (SPs) on 3rd year medical students during end of clerkship clinical skills assessments. At the end of each of the seven core third year clinical clerkships, students are required to participate in an objective structured clinical examination (OSCE). The OSCE is a series of discrete, simulated clinical encounters designed to assess patient communication, physical examination, and data synthesis. SPs complete behavioral checklists immediately following each encounter. The twenty item communication skills checklists are free of discipline specific clinical content, and are designed for use without modification for any encounter. An added bonus of our common, cross-discipline checklist is that the same series of behaviors are measured for each clinical rotation. We have identified clusters of checklist items which we believe may contribute to an overall stable construct of professionalism. It is our intent to construct a database of checklist data culled from multiple disciplines, thus allowing us to explore the possible existence of a longitudinal profile of professionalism. It is hoped that by identifying such traits, we can also identify and address deficits earlier in students' training.

Impact of Teaching Faculty Attitudes Upon Post-Graduate Trainees Utilizing Mental Health Services

Kathleen Dass, MD; Lynda Misra, DO, FACP, MEd

Recent studies show significant rates of depression and burnout among post-graduate medical trainees, with potentially dangerous consequences and a documented increase in errors. Of those trainees identified, less than half sought the recommended treatment. The study's objective revolves around attitudes and utilization of mental health services within post-graduate trainees and attending physicians. Faculty were assessed for their attitudes towards mental health resources and recognition of depression. Residents were assessed on their perceived attitudes of teaching faculty and utilization of resources. A survey was distributed to internal medicine physicians and residents rotating through internal medicine in August 2011 and February 2012. Trainees were also screened for depression using the Patient Health Questionnaire-2. The majority of physicians stated they asked trainees about their mood and were aware

of resources. Faculty believed that they should identify and recommend resources for trainees who exhibit mental health signs/symptoms. The responses did not change from fall to spring. Trainees reported almost an equal number of depression or burnout in fall and spring. About half of trainees had never been asked about their mood, and the same number reported no knowledge of hospital resources. More trainees reported feeling their attendings would judge them for using mental health resources in August versus February though residents in both groups reported having accessed resources in the past. The majority of trainees reported adequate social support. Overall, attending physicians appear to be recognizing burnout in residency more frequently. With changing attitudes, trainees can better use available resources and improve patient care.

Inaugural “Residents as Teachers” Program: Description of Curriculum and Outcome Study

Estela Mogrovejo, MD; Minkyung Kwon, MD; Jeffrey Devries, MD, MPH

INTRODUCTION: Residents/Fellows do a substantial amount of teaching to students and junior residents despite little or no formal teaching training. The “Residents as Teachers” (RAT) program, begun in August 2013, was created to provide practical teaching skills to residents/fellows of any specialty, following the Stanford University Faculty Development Center model. **PROGRAM OVERVIEW:** The primary goal is to enhance residents’/fellows’ teaching skills. This voluntary program consists of 10 monthly, 2-hour interactive sessions. Upon successful completion, participants obtain a “Certificate of Advanced Medical Education”. **EDUCATIONAL GOALS:** 1) Increase residents’/fellows’ awareness of their roles and responsibilities as teachers; 2) Identify teaching goals; 3) Learn to use a variety of teaching methods; 4) Identify and adapt teaching to students’ needs, perspectives, and expectations; and 5) Learn use of role modeling and formative feedback. **RESEARCH PROJECT:** HIC approval was obtained prior to initiation of the course. Participants were enrolled voluntarily at the beginning of the program. The study assesses the educational outcomes achieved during the course by evaluating participants’: 1) Knowledge and Attitudes: with 10 pre- and post-session surveys as well as a pre- and post-course survey. 2) Skills: with an evaluation tool given to participants’ students and junior residents. Results will be analyzed upon completion of the course. **CONCLUSION:** The RAT program is a new, innovative course intended to provide techniques to develop and improve teaching skills, empowering residents and fellows in their role as teachers. The upcoming study results will demonstrate whether there was an impact in participants’ knowledge, attitudes and skills.

Using technology For Content, Engagement, Projects and Research

Kathleen E. Doyle, MEd; Dr. James Huang, Associate Professor, OUWB School of Medicine; Dr. Roy Soto, Professor, OUWB School of Medicine, Residency Program Director, Department of Anesthesiology

OBJECTIVE: When used properly, certain types of technology can be very helpful for instructors, staff and students to present information in a timely and useful manner. Through the use of innovative software, the plan is to continue to evaluate, build and roll out creative, user-friendly software and help train people to utilize it. **NEED:** The innovation addresses the need of faculty, students and staff to become familiar with different types of authoring software used to create online elements for learning, projects and research. Students, faculty and staff can use the applications to create online learning modules and interactive activities that address diverse learning styles of participants. **DECISION-MAKING:** Best practices of Instructional Design, knowledge of results of current research about creation and use of learning modules and online elements in medical education and their impact on student learning, are some of the elements used as resources to support decisions made concerning software. **STRENGTHS AND EDUCATIONAL OUTCOMES:** Faculty, Student and Staff Subject Matter Experts (SME’s) would become savvy content developers. Students may also utilize the software to develop written, visual compilations of their knowledge in a framework that can be used online and for record keeping of projects and interactive research initiatives for Capstone. Increase the awareness and integration of different course delivery methods, instructional strategies, technology tools and best practices of Instructional Design of course content for the School of Medicine.

Measuring the Effectiveness of Peer-Assisted, Clinical Skills Training for Medical Students

Joseph Vercellone, Class of 2016 MD Candidate; Lynda Misra, DO, FACP, MEd

Clinical skills education impacts medical students future efficacy and those who practice clinical skills in early coursework enter clerkships better prepared. Despite research on skills peer-assisted training, little quantitative research exists. Additional research was performed quantifying the impact of peer-assisted clinical skills training on student physical and written exam performance. First and second year medical students at Oakland University William Beaumont School of Medicine (OUWB) were enrolled in the research study. A series of workshops were held throughout the curriculum year focusing on proper techniques for taking histories and performing physical exams. Second-year medical students provided exam demonstrations to first-year medical students. The study analyzes changes in student confidence and compares end-of-year Objective Structured Clinical Examination (OSCE) scores of workshop participants to the control group. Peer-assisted workshops are in process and data comparing workshop participants to the control group will be completed once 2013-14 student performance has been determined. Study data is expected to show a statistically significant increase in both first- and second-year student performance on OSCE physical exams. Pre- and post-study surveys should also demonstrate a significant increase in participant confidence and conceptual knowledge of physical exam skills. If study data point to a significant increase in participant performance and confidence, medical schools could implement peer-assisted clinical skills workshops to augment traditional instructor-led curriculum. These workshops would better prepare first and second year medical students for their clerkship years.

Molecular and Cellular Biology Adaptive Virtual Learning Environment

Kara E. Sawarynski, PhD; David M. Thomas, PhD; Brian P. Collins, PhD (Venturit Inc, East Lansing, MI), Prabode Weebadde (Venturit Inc, East Lansing, MI)

Molecular and cell biology is a constantly evolving area of science that encompasses many diagnostic as well as treatment plans within the medical field. Obtaining a robust ability to comprehend and analyze molecular medicine techniques is paramount for future physicians' success within this rapidly developing arena. Due to several factors, hands-on biology laboratories often are not present in a medical school curriculum. Although these topics are often covered in a lecture setting, the critical thinking and conceptual understanding of the molecular tools themselves are frequently only cursorily taught. We have developed an adaptable platform designed to help learners develop a deeper understanding of topics related to complicated, clinically relevant experiments and prepare them to be better able to transfer the knowledge to their future medical careers. Students will be required to make virtual experimental plan choices, which will each have an impact on their final result just as occurs in reality. To support independent learning, platform administrators scaffold learning with curated resource modules that are designed to support deep learning. The administration of an adaptable virtual learning environment will serve to enhance the understanding of complicated molecular medicine techniques, and promote the development of more capable physicians within the intricate molecular and biology field.

Nurturing Cultural Competence in the Medical School Community: An Extracurricular Education Series for Students, Faculty and Staff

Raymond Y. Yeow, Class of 2016 MD Candidate; Dena Abuelroos, Class of 2017 MD Candidate; Emman Dabaja, Class of 2017 MD Candidate; Melphine M. Harriott, PhD (Midwestern University College of Osteopathic Medicine, Downers Grove, IL); Stephanie Jurva, MSA;

Fostering diversity and cultural competence in medical students is vital, especially in today's diverse society. Medical schools must produce culturally competent, compassionate physicians who can recognize and care for patients from diverse backgrounds including race, ethnicity, socioeconomic status,

age, gender, religion and literacy level. It is just as important for faculty and staff to support students and nurture this cultural awareness. The challenge is moving students beyond knowledge learned in the classroom to recognizing diversity issues and health care disparities in the clinic and surrounding community. Most medical school curricula have separate programs or weave elements of diversity and culture competence into the pre-clerkship or clerkship years as outlined by national standards. A unique extracurricular programming series was developed spanning the first two years of undergraduate medical education to raise awareness of local health care disparities and provide community involvement opportunities for students, faculty and staff. This series was connected to the M1 and M2 curriculum and was also linked to national health observances or related university events. This successful series can be adapted to any curriculum to help nurture cultural competence for students, faculty and staff of any medical school community.

On Art and Science: An Epistemic Approach to Curriculum Design for the Integrating Social Science and Clinical Medicine

Jason Adam Wasserman, PhD; Ernest F. Krug III, MDiv, MD, FAAP

Approaches incorporating social science into medical education have neither accounted for logistic constraints of training nor the fallacies of utilizing “social facts” in clinical practice. The art of medical practice remains largely conceptualized as an innate gift, while those without it are taught to “pass” using mechanistic techniques. A well-founded pedagogy for sociological and humanistic medical training is increasingly important when uncertainties of treating chronic illnesses suggest a re-expanding role for clinical judgment. We illustrate a bioethics curriculum that emphasizes the use of heuristics to promote the learners production of social scientific insights from their own observations of health issues, case studies, and patient encounters. Rather than posturing social science and humanism as an additional discipline within medical education, this curriculum seeks to empower of learners with heuristics that allow them to actively think sociologically and humanistically in the clinical encounter.

Online Simulation of Clinical Reasoning in an Interprofessional Clinic

Stephen Loftus, PhD

This poster describes an online activity that enabled participants to simulate the clinical reasoning that occurs in an interprofessional clinic in pain management. The students, themselves an interprofessional group of clinicians, were carefully divided into teams: one physical therapist team, one pain physician team, and one clinical psychologist team. There would, for example, be only one physician in the physician team whose role was to guide the other members. Over a period of a few weeks, the teams would be prompted to work through a complex clinical case in stages from initial presentation through to a clinical conference with the other teams. At each stage they were asked to decide what further information their team/profession would need and what would be done with new information and information already gathered. The exercise enabled participants to reach a deeper understanding of how other health professions reasoned through complex cases and how interprofessional clinics can function.

Perception and Emotional Impact of Anatomy Dissection on Medical Students in Oakland University William Beaumont School of Medicine

Inaya Hajj Hussein, PhD; Mark Hankin, PhD; Mohammed Dany, MD/PhD Candidate (Medical University of South Carolina, Charleston, SC) , Jason Wasserman, PhD; Abdo Jurju, PhD (American University of Beirut, Lebanon)

Dissection contributes significantly to anatomical knowledge and the development of professionalism for medical students. This study assessed student emotional stress and coping in the anatomy lab and the perception of dissection on learning. A survey of Medicine I students (n=100) assessed: demographics, emotions and stress of the first dissection, anxiety, coping, and learning. With a response rate of 40%,

our findings include: positive attitude towards the first dissection (n=33) although some students still found it stressful (n=17); cultural views impacted the lab experience (n=24); some used spirituality (n=10) or humor (n=6) to cope; most agreed that dissection enhanced understanding of anatomy (n=31) and the connection of between theoretical and applied knowledge (n=37); promoted teamwork (n=35); and highlighted respect for the human body (n=31) and the spirit of organ donation (n=28). While some have assumed that students have a negative attitude towards human dissection, our study showed that the majority of students reported a positive impact on various aspects of professionalism and humanism. We conclude that dissection is useful for students to establish not only technical skills and knowledge of the body, but also qualities associated with inter-professional teamwork and a humanistic attitude, without posing significant emotional stress.

Relationship Between Physicians and Patients with ASD

Kassem Faraj, Class of 2017 MD Candidate; Mary Dereski, PhD

Autism spectrum disorder (ASD) is a pervasive developmental disorder characterized by impaired communication, impaired reciprocal social interaction and restricted, repetitive and stereotyped patterns of behaviors or interests. It affects 1 in every 150 children in the United States. Individuals who have ASD require specific accommodations during their interactions with medical personnel, which are related to the social, rather than the medical aspect of their clinical visit. Lack of understanding in this area can be detrimental to the care of these patients due to the problems that can ensue during the care of a patient who has ASD if the caregiver is not informed about certain patient preferences. This study will aim to evaluate physician awareness of accommodations required by ASD patients in the clinical setting. A survey will be generated to assess physician awareness of certain accommodations and preferences of patients who have ASD. This survey will be distributed to departments at Beaumont-Royal Oak Hospital, which include Pediatrics, Internal Medicine, Family Medicine, Emergency Medicine, and Psychiatry. The study will aim for at least 15-20 responses per department. Awareness levels will be determined by quantitatively assigning answer choices awareness values and a one-way ANOVA test will be used to analyze awareness levels of physicians, while also comparing awareness between departments. Based on the analysis of the data, focus will be placed on areas deemed uninformed by physicians and action will be taken to provide this information to physicians in order to improve the quality of care for patients who have ASD.

Resident and Medical Student Education in Physical Exam Findings

Haramol Gill, Class of 2015 MD Candidate

Medical education has always required years of training and the utmost commitment. A key goal being this: To help medical students and residents accurately recognize and diagnose pathology when it presents itself. Although the years of medical training provide many different opportunities to see physical findings, a resident's or medical student's exposures are often limited to their own patients. Patients with incredibly unique physical findings are seen by only a handful of medical scholars, when many more can benefit from these experiences. In an attempt to mitigate this, two separate programs are underway: A "shared list" through EPIC for residents as well as a Physical Diagnosis Interest Group (PDIG) for medical students. The "shared list" in EPIC is designed to allow Internal Medicine attending physicians to add consenting patients with unique physical findings. From here, other attendings, residents, interns, and medical students can then see these patients. The Physical Diagnosis Interest Group (PDIG) is designed to benefit M3 and M4 students. Each month, students are made aware of a patient with an interesting physical exam finding. They are encouraged to go perform a pertinent physical exam and create a differential. Once this is complete, students are given the diagnosis as well as relevant educational material. Finally, these programs also provide an opportunity for research into their effectiveness as educational tools. The ultimate goal: to create lasting programs to instill confidence in students and their abilities to diagnose and care for patients.

“Resident as Teachers” Program at Beaumont

Minkyung Kwon, MD; Estela Mogrovejo, MD; Jeffrey Devries, MD, MPH

The Resident as Teachers (RAT) program is a voluntary, monthly workshop at Beaumont for residents and fellows. It incorporates didactic presentations, guest lectures, group discussions, analysis of videotaped reenactments of teaching encounters, and individual and institutional goal setting, based on the curriculum taught at the Stanford University Faculty Development Center. Eight months into the workshop, we are proposing suggestions for next steps. Based upon feedback from a convenience sample of current participants, we recommend several curricular modifications next year's RAT class: 1) Incorporate specialty-specific role-playing exercises to enhance interaction between participants and to practice actual teaching skills with direct feedback from peers; 2) Participants may voluntarily conduct an educational research project as part of the curriculum to help participants analyze what they need to learn and practice to become better teachers; 3) Creative topics can be added, such as mentoring or teaching at different settings (operating room, ambulatory, inpatient setting, etc.); 4) To stimulate further learning, readings related to the topic can be provided at each session. 5) A RAT resource website can be used to promote, acknowledge, reward, and share teaching practices; 6) Continue to improve quality by including supplemental micro-skills and problem-based teaching; and 7) Emphasize continuity of subject matter. Although the first iteration of Beaumont's RAT program represents a good start, there are many opportunities to improve. We described the future direction of RAT. We expect RAT to be an ongoing, efficient program for residents and fellows to cultivate their own teaching skills.

🌟 Structured Senior Morning Report to Promote EBM Learning

Justine Nasr, MD; John Falatko, MD; Michael Barnes, MD; Lynda Misra, DO, FACP, MEd

Evidence based medicine (EBM) has become an integral component of graduate medical education. Emphasis on the standardization of EBM curriculum has been encouraged by the Accreditation Council for Graduate Medical Education (ACGME) and Association of American Medical Colleges (AAMC). Residents are expected to reach specific milestones in this topic that is now regarded as a core competency. Asking pertinent clinical questions, accessing appropriate resources, critically appraising literature, and application of the literature to practice are skills that are expected of residents at the end of their training. Our residency program has standardized senior morning report presentations as a guide to help promote pragmatic practice of EBM. Senior morning reports are structured as follows: 1. brief presentation of a patient or clinical scenario; 2. presentation of patients/intervention/comparison/outcome (PICO) question; 3. presentation of literature search and the method used to screen abstracts or narrow the original search; 4. presentation of the article and Critical Appraisal using JAMA evidence appraisal outlines; and 5. discussion of the application to the clinical scenario. We believe that providing a structured format for senior morning report presentations promotes development of critical EBM skills. This method of guided learning is longitudinal and can be implemented throughout the years of graduate training. It also offers the learner real time response by peers and faculty regarding their EBM skills.

The Robert J. Lucas Surgical Society: A Model of Medical Education Through a Student-Run Group

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As a new medical school, Oakland University William Beaumont (OUWB) School of Medicine provides a wealth of opportunity for students to participate in the organization and development of student interest groups. The Robert J. Lucas Surgical Society, established as an expansion of the former Surgery Interest Group, has served as one of the aforementioned opportunities for growth. Not only has it provided many students the opportunity to attain leadership roles within the Society itself, but it has also offered many events and programs geared towards enriching the student body's understanding of surgery and the surgical subspecialties. Some of these events have included panels of attendings discussing life in their particular fields, as well as open forum question and answer sessions with residents offering advice on the ever-intimidating match process. The Society has also provided procedure nights, run by general

surgery residents, during which students are able to gain hands-on exposure to common surgical techniques and practices. OUWB medical students have the unique advantage of having direct access to successful general surgery residents who are extremely invested in enriching their experiences. Through the Society, there exists a ripe potential for studying the impact of such a group on the students' level of knowledge regarding the field of surgery, as well their eventual residency choices and experience with the match process. Such research may help guide future practices of the Robert J. Lucas Surgical Society, in addition to providing an example of a successful paradigm to other medical schools around the nation.

Use of a Standardized Pretest and Post-Test to Assess Student Knowledge and Learning on a Pediatric Clerkship

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The OUWB 3rd year Pediatric Clerkship began hosting students in August 2013. Students were queried at the beginning of each track regarding the amount of pediatric teaching they received during the first two years of medical school and most answered "little to none." We developed a tool to assess the students' initial pediatric knowledge and subsequent learning during the 6 week rotation. The tool involved a 50 question multiple choice test structured by the Clerkship Director to reflect basic concepts in pediatrics (for example: asthma, croup, otitis media, pneumonia, etc.). These were taken from the CLIPP question bank which includes a total of over 400 questions. CLIPP is a well-known national online teaching resource that includes case based modules for students to review during their 3rd year clerkship. The pretest was administered routinely on Day 2 of the 6 week clerkship. The post-test was administered on the last Tuesday in week six. The average pretest score for 36 students in the first 5 tracks was 60.55% with a range of 36-80%. The average post-test score was 83.36% with a range of 60-98%. All students showed improvement with a range of 4%-38%. Pretest score averages ranged from 54-64%. Post-test averages ranged from 78.7-86%. Statistical analysis is underway to determine if any significant trends are evident regarding time of rotation and initial pediatric knowledge as well as subsequent acquisition of knowledge. Future plans include comparison of these scores with subsequent Shelf exam performance.

 *Poster selected as a podium presentation*