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Abstracts

<u>Oral Session</u>

Turning from Deficits to Strengths: Teaching Students a Strength-Based Approach to Clinical Care and Community Health

Anthony Fleg, MD, MPH, Family & Community Medicine and College of Population Health

Asset Mapping is a well-recognized approach to clinical and community health, championed by the fields of social work and public health. In the field of medicine, an approach that is focused on disease, deficits, deficiencies, addictions, etc. is the dominant model, leading to interventions that fail to incorporate strengths that could contribute to the care plan. Strength-based approaches to clinical and community health will improve efficacy of interventions, increase student/provider satisfaction with their work, and is a method toward addressing health inequities. In this presentation, we will explore ways that UNM faculty are utilizing this approach in teaching health-professions students.

Longitudinal Evaluation of Pediatric Residency Didactics Transition from Noon Conference to an Academic Half Day

Claire Zeorlin, MD, Kristel Montano, MD, Rebecca Craig, MD, E. Anne Greene, MD, Lanier Lopez, MD, , Alfonso Belmonte, MD, Amy Staples, MD, Walter Dehority, MD, Christal Chow, MD, Taylor Ford, MD, Pediatrics, and Yiliang Zhu, PhD, Internal Medicine

BACKGROUND: In 2009, the UNM Pediatric Residency transitioned program didactics from noon conference to an academic half day. Immediate evaluation of resident and faculty satisfaction, resident attendance, board exam pass rate and In-Training-Exam (ITE) scores showed improvements with this change.   OBJECTIVE: Investigate the longitudinal impact of the academic half day at UNM on resident and faculty satisfaction, resident attendance and clinical knowledge in the form of standardized exam results.   METHODS: In this mixed-methods study, surveys regarding satisfaction were conducted of current pediatric residents (n=32) and faculty (n=32) at UNM. To assess clinical knowledge, quantitative measures such as senior resident ITE scores and pediatric board exam pass rate will be evaluated. Finally, focus groups were conducted with pediatric residents and faculty separately to evaluate concepts related to resident autonomy, competence and engagement with the academic half day.   RESULTS: Preliminary review of survey data shows 88% and 63% overall satisfaction with the academic half day format from residents and faculty respectively, consistent with 2012 study results. Similar to prior, residents feel that the academic half day does not interfere with clinical education (97%) or patient care duties (83%). Pediatric Board exam pass rate from 2015-2017 is 65% which is similar to pass rates prior to the academic half day. Senior resident ITE scores and resident attendance rates are currently being compiled. Initial review of focus groups shows preference for academic half day in relation to decreasing interruptions to patient care and increase in resident autonomy in clinical areas.   CONCLUSIONS: Preliminary data shows sustained overall satisfaction amongst residents and faculty. Board exam pass rates are unchanged, focus groups have identified further areas of intervention including increased resident engagement in didactics.

More than Aligning Perceptions: Medical Student Mistreatment and Psychological Safety on the Surgical Clerkship

Rebecca Lynn Williams-Karnesky, MD, PhD, and Ming-Li Wang, MD, Surgery

BACKGROUND: Despite decades of reporting, rates of medical student mistreatment on the surgical clerkship remain a national issue; our institution is no exception. In order to understand if misaligned perceptions about what constitutes mistreatment were leading to high rates of reported mistreatment at our institution, we implemented a well-studied video-vignette-based intervention on our surgical clerkship. We combined this intervention with semi-structured focus groups to gain further insight into the unique experience of students. METHODS: Medical student volunteers were recruited from the surgery clerkship to participate in a two-hour session consisting of a one-hour semi-structured focus group followed by the video vignette-based curriculum, which was accompanied by a facilitated discussion. RESULTS: Over five clerkship blocks 76 students responded to the end-of-clerkship survey (83% response rate). Based on the end-of-clerkship survey results, students were more likely to report experiencing mistreatment (24% vs 9%, p=0.096) or witnessing mistreatment (47% vs 6%, p<0.01) if they participated in the intervention. Students who participated in the intervention also reported experiencing neglect more frequently than non-participants ("Often" 15% vs 4%, p=0.05; "Never" 24% vs 57%, p=0.05). Conclusion: Analysis of focus group data indicated that lack of psychological safety in the learning environment is a key factor contributing to medical student reporting of mistreatment. Since this study began, we have implemented changes to the clerkship as well as to the department of surgery to create a more positive learning environment, which are already showing promising results. This study illustrates that education-based interventions alone are not sufficient to address mistreatment on the surgical clerkship, and that locally responsive solutions that address psychological safety in the learning environment are critical to effecting real change.

A Prospective Study of Medical Student Mental Health and Attitudes of Mental Illness Disclosure

Michael Castle, BA, MSIV, Ian Fletcher, BA, Aaron Scarpa, BS, Orrin Myers, PhD, Family & Community Medicine, and Elizabeth Lawrence, MD, Internal Medicine and Office of Professional Wellbeing

BACKGROUND: Little is known about whether students would disclose a history of mental illness on a residency or state medical licensure applications if disclosure were required. This study uses preliminary data to explore the burden of perceived mental illness among medical students, whether or not medical students would be willing to disclose this information on a residency or licensure application if prompted, and reasons for disclosure hesitance. METHODS: We electronically invited all University of New Mexico School of Medicine (UNM SOM) students enrolled in the Classes of 2019-2022 to participate in a REDCap survey about the diagnosis and treatment of mental illness. Four e-mails were sent to these students over a one-month period. This process was then repeated the following year targeting all medical students in the Classes of 2020-2023 at the UNM SOM. RESULTS: The average response rate for the two years of analysis was 49.3% (391 respondents). There was no significant effect due to difference in the two cohorts (p-value= 0.51). There was a significant effect of year in school and odds of perceived worsening of mental health (p-value= < 0.001). The odds ratio of worsening mental health when compared to 1st-year students for the pooled cohorts was highest in 3rd year students at 11.8 (95% CI: 6.09-22.88). 45% of polled students perceived that their mental health worsened during medical school. 62% of students would not disclose their mental condition to ERAS and 51% of respondents would not

disclose this information on a licensure application to the New Mexico Board of Medical Education if prompted.   CONCLUSION: Students who perceive themselves to have mental health conditions are unlikely to disclose their mental health status on residency applications or state medical board applications when asked to do so. Furthermore there appears to be an association between year in school and mental health status, although more data is required.

Comparing Critical Thinking Outcomes in 1st-Year Occupational Therapy Problem-Based Learning Groups Using Six Thinking Hats Strategy

Carla Wilhite, OTD, Occupational Therapy; Soumyajit Chakraborty, PhD, Economics

PROBLEM STATEMENT: Contemporary occupational therapy graduate students participating in PBL are not maximizing development of critical thinking skills before entry into professional education. Hypothesis: There will be a difference between students receiving a critical thinking teaching intervention in PBL, compared to those who do not receive the intervention, as measured by the Health Sciences Reasoning Test. OBJECTIVES 1. OT Graduate students will demonstrate improved performance in critical thinking skills after receiving an explicit teaching intervention in developing improved critical thinking skills, within 12 months, as measured pre/post by the HSRT.   RESULTS: Analysis of data is in progress, tentative results will be disclosed at the session. OUTCOMES/IMPACT ON UNM SOM: Occupational therapy students will benefit directly, by receiving intensive teaching and learning opportunities to practice critical thinking and problem solving. The knowledge gained from the research can benefit other UNM SOM and HSC students and faculty to create an educational environment that supports contemporary learners to grow in confidence and competence in critical thinking and concurrently, with improved clinical reasoning. Funding: HSC Scholarship in Education Allocations Committee.

Interactive Telehealth Video Visits: A New Age for OSCEs

Therese Hidalgo, DNP, RN, FNP-BC, Kristen Ostrem-Niemcewicz, DNP, RN, FNP-BC, CNM, UNM College of Nursing

Healthcare in New Mexico is changing with the authorization of insurance reimbursement for telehealth. In order to prepare graduates to provide this care the College of Nursing has added video visit simulations to our Objective Structured Clinical Evaluation (OSCE) program. OSCEs have been extensively used in health science undergraduate and graduate programs across the country, demonstrating a high correlation with actual clinical skills and are crucial in the preparation of competent providers. Scarcity of suitable clinical sites, the high cost of faculty-led site visits, and the variability of clinical experiences create barriers for equitable evaluation of clinical performance. These challenges have prompted innovative clinical evaluations of students in remote sites. A standardized evaluation tool was developed to facilitate consistent assessment. The Focused Assessment of Clinically Targeted Skills (FACTS) checklist provides standardization of evaluation and feedback. The FACTS evaluation tool has been used for direct clinical observation and all OSCE experiences leveling the playing field for consistent student evaluation. This presentation will outline the planning, coordination, implementation, and standardized student evaluation used during video visit OSCEs at the University of New Mexico, College of Nursing.

Choosing Wisely at UNM School of Medicine

Nardos Dawit, MSII, Mary Lacy, MD, Internal Medicine, and Ryen Ormesher, MSII

The cost of healthcare in the United States is rising and consumes around 20% of our GDP. High costs of care negatively impact patients as well as our healthcare system. High-value care is a movement aimed at balancing clinical benefit with cost, with the goal of improving patient outcomes. Prior to this, there have been no organized efforts to introduce pre-clinical medical students to issues of cost and value at UNM SOM. Last year at UNM, two first-year medical students were accepted into the national Choosing Wisely STARS (Students and Trainees Advocating for Resource Stewardship) program and received faculty mentorship as well as training at a national leadership summit to implement change at the local level. The students conducted a survey of their classmates at the end of the Practical Immersion Experience (PIE) to assess student exposure to the concept of high value care. While the survey results indicated that most students understand the basic definition of high value care, it also shows that over 80% of students encountered patients for whom the cost of care was a problem at least weekly, and that further opportunities exist within the curriculum to better prepare students. Over 80% of students felt unprepared to discuss issues of costs of care with patients, over 60% of students did not feel that doctors talked enough to patients about costs of care, and over 60% did not feel that the school of medicine adequately prepares students to understand the cost burden on patients. Students were offered a badge card prior to PIE that highlighted the principles of high value care, but less than 10% of students used the card or the highlighted resources. Further work is needed to support students in learning about the issues of cost and value and how these issues affect our patients, and we are working to implement changes in the curriculum within PIE, Clinical Reasoning, and the continuity clinic portion of Doctoring to help introduce students to this issue.

Tracking Student Progress Across the Curriculum

Tiffany Enache, Physical Therapist, Physical Therapy

Monitoring students' progress across the curriculum serves several purposes: to ensure successful progression through the curriculum; to provide support to students who are not progressing successfully; to develop remediation plans for students that are trending below expectations; and to institute disciplinary action for performance issues. This presentation is designed to inspire faculty to base student-progress decisions on reliable and thorough evidence. When a mechanism is developed to record this data in an accurate and comprehensive manner, the need to discuss individual students at faculty meetings is diminished. This saves the faculty time and preserves student rights and dignity. The UNM Division of Physical Therapy has developed two formal processes to track student performance: a comprehensive tracking spreadsheet and a full file review template. The tracking spreadsheet includes all assessments across the curriculum. In the cognitive domain, exams, quizzes, and high weighted assignments are recorded as pass, fail, or marginal. In the psychomotor domain, skills checks and lab practicals are recorded as pass, fail, or marginal. In the affective domain, low weighted assignments are recorded as pass or fail, low-quality or late, and professional behaviors concerns are tracked. This spreadsheet is fast and easy for faculty to use. In this presentation, the comprehensive tracking spreadsheet will be displayed and associated processes discussed. The presenter will illustrate the difference in quantity and quality of data prior to versus following the institution of the comprehensive tracking spreadsheet. The presenter will demonstrate use of the full file review template in conjunction with the spreadsheet.

The Influence of a Clinical Course-Based Undergraduate Research Experience on Career Choice

Silas Bussmann, MBA, MPH, Danielle Albright, PhD, Lynne Fullerton, PhD, Emergency Medicine

Course-based undergraduate research experiences (CUREs) involve students in scientific research projects. CUREs may improve student retention, critical thinking and gender and racial diversity in the sciences. Undergraduates who participate in the design, conduct and dissemination of research results report positive outcomes including the intention to pursue graduate education or careers in science. In 2012, the UNM Department of Emergency Medicine began offering the Research in Acute Care (RAC) course track, a clinic-based CURE in human subject research (HSR). This research evaluates the impact of RAC course track on student career plans. We asked 193 current and former RAC students to complete a survey including 5 point Likert scale questions on course experiences, current employment and education statuses, and future career plans. The survey was distributed by email and responses were recorded anonymously. Sixty-nine students completed the survey resulting in a 37% response rate. Respondents were 54% female, with a median age 24 years, 74% were white, 16 % Asian, 4% black, with 35% identifying as Hispanic. Almost all respondents reported they were satisfied with course and that the RAC course track developed their ability to think critically about research. Fifty-nine percent were subsequently accepted to graduate programs, including clinical doctoral programs (N = 33) and non-clinical doctoral programs (N = 5). Ninety-three percent said knowledge and experience gained in the course was valuable for their chosen career and 67% reported the course influenced their education/career choice. Twenty-eight percent reported current employment in a research occupation. Students reported the RAC course track influenced their education and employment intentions and improved their critical thinking skills. The RAC track provides a confluence of clinical observation and HSR experience not available in any other undergraduate context.

Does Patient Age and Criticality Affect the Paramedic Student's Opportunity to be a Team Leader?

Josh Lopez, BS-EMS, John Meyer BS PM, Adam Alford BS NRP, Elizabeth Todak MS PM, Kyra Wicklund MPH, Kevin Loughlin, William Camarda MS NRP, Marilee Rosensweig MEd PM, Lynne Fullerton PhD, Emergency Medicine, and William Robertson DHSc NRP, Weber State University

Throughout various health-professions education, it is common for student learners to follow preceptor experts in the clinical environment. Depending on the profession, some students may encounter various age groups and various severities of patient presentations. This research in emergency medical services (EMS) education sought to investigate whether the age and acuity of the patient influences the paramedic student's opportunity to act as a team leader during pre-hospital internship experiences. A retrospective review of student records in FISDAP, a national online EMS student tracking system, was completed. 537,343 patient encounters among 5,720 students from January 2010 to December 2018 were analyzed; statistical analysis included the use of odds ratios. Results found that paramedic students led less pediatric encounters than adult encounters. Paramedic students were significantly less likely to lead calls with all pediatric age groups across increasing levels of acuity with the exception of 3-12 year-old patients who were "critical" or had a "life-threatening illness/injury"; in this case, they were just as likely as their preceptors to lead the pre-hospital team. Additionally, paramedic students across the nation generally led a higher percentage of "critical" encounters than "non-critical" encounters (46.26% to 26.63%) during their field internships. When considering clinical experiences for health-profession

learners, using this research from EMS education as proxy may help clinical educators develop more effective training for preceptors and clinical sites to preemptively address this phenomenon. Specifically, preceptors should be educated to allow increased opportunities (when available and appropriate) for students to act with more autonomy among pediatric populations in the clinical learning environment. Ideally this increased exposure and practice will help build future generations of more prepared and more experienced healthcare professionals.

Use of a Needs Assessment to Develop a Curriculum for an Internal Medicine Boot Camp for Graduating Medical Students

Sarah Burns, DO, MS, and Mary Lacy, MD, Internal Medicine

Transitioning between medical school and internship is stressful with newly increased responsibilities. One way to prepare fourth year medical students for residency is through a boot camp course. Boot camps are more frequently cited in the surgical literature as a way to increase the confidence of students entering surgical internship, but may offer similar benefits to students entering an internal medicine internship. With a 5-point Likert -cale survey, we conducted a needs assessment of fourth-year students entering internal medicine internship, interns, and hospitalist attendings. We asked students about their current comfort level in 23 topics encountered in internal medicine. For interns, we asked them to reflect on their comfort level with each topic at entrance into internship. For attendings, we asked them to rate the importance of each topic. Our results showed that over half of current interns indicated feelings of discomfort with a greater number of topics than did students (16 vs. 6). Interestingly, inpatient and outpatient procedures showed very high levels of discomfort by students and interns though were rated as being unimportant by hospitalist faculty. Using data from our needs assessment, we sought to create a curriculum for graduating medical students entering an internal medicine internship that would address their verbalized needs as well as inferred needs defined by faculty responses. Findings that our fourth-year students reported higher comfort level with topics than internal medicine interns reflecting back on their comfort level may be a result of different medical school preparations, response bias, or recall bias.

Clerkship Modifications for Rural and Urban Underserved Program Scholars

Crystal Krabbenhoft, BS, Family and Community Medicine, Anna Kistin, BS, MS4, Katarina Leyba, MBA, MS3, Cecilia Valverde, BS, MS4,; Huynh Nguyen, BS, MS4, William Aragon, BS, MS; Robert Williams, MD, MPH; Family and Community Medicine, Shannen Ramey, MPH, MS3, and Amber Lalla, BS, MS3

Clinical clerkship directors and coordinators together with the Rural and Urban Underserved Program (RUUP) have created targeted opportunities for RUUP Scholars during 3rd year clerkships. These opportunities aim to build Scholars' clinical experience, knowledge and skills working with medically underserved groups. RUUP Scholars now have the option of spending part of their clerkships at hospitals and clinics in Shiprock, Gallup, Espanola, and Alamogordo for a portion of their OB/Gyn, Surgery, and Pediatric rotations. In addition, Scholars have options for unique outpatient experiences as part of their Pediatrics and Psychiatry clerkships, and for selected placements for Family Medicine clerkship. We will be sharing reports of experiences from the first two classes of RUUP Scholars to have these options, as well as descriptions of operational processes and hurdles. These innovative clinical experiences can be a key step to help program participants to be leaders in the care of underserved communities.

Developing a Structured Training on Responding to Discrimination from Patients

Eileen Barrett, MD, Internal Medicine, Krystle Apodaca, DNP, FNP-BC, FHM, College of Nursing

Discrimination against clinicians is increasingly common. Few educational opportunities exist on how to respond to discrimination from patients and visitors. The authors developed and presented an interactive training on this problem, potential strategies for how to respond, and creating solutions. During an educational meeting, faculty presented a video about *Times Up Healthcare* then participants read a *JAMA* article about discrimination and the need for allies to speak up. Participants then engaged in think-pair-share on the article and experiences with speaking up. Next, faculty presented a peer-reviewed journal article on a qualitative analysis of semi-structured interviews that provides a framework for responding to discrimination from patients. Using guidance from existing literature, potential approaches for addressing the problem were presented. These included strategies for faculty, trainee, and frontline clinician development and institutional involvement. Next, participants read another *JAMA* article on calling-out inappropriate behavior that includes recommending being prepared for how to respond to discrimination and then performed think–pair–share on the article with discussion prompts. The session concluded with solicitation of best next steps, and the group developed a task force that would champion training for faculty and learners, measure how often the problem occurs in the institution, and develop policy and education on escalation/the chain of command. Lessons learned and next steps: (a) There is a need for training on responding to discrimination from patients and visitors. Faculty and trainees can lead education and empower others through sharing informational materials. (b) Future directions include studying the effects of these efforts on implementing a process, policy, and training for responding to discrimination. (c) Education Day participants can use and adapt these materials to conduct trainings in their environment.

Evaluation of Alcohol Use Habits of Medical Students at The University of New Mexico School of Medicine

Aaron Scarpa, BS, MSIV, Michael Castle, BA, Ian Fletcher, BA, and Elizabeth Lawrence, MD, Internal Medicine and Office of Professional Wellbeing

BACKGROUND: Alcohol use disorder (AUD) is not uncommon among practicing physicians. Of physicians, 15.3% meet criteria for AUD, compared to 13.9% of adults in the lay public; moreover, female physicians are more likely than their male colleagues to meet criteria for AUD, whereas men in the lay public are more likely than women to have AUD. We hypothesized that alcohol use patterns in medical students would mirror those of practicing physicians and not those of the lay public. METHODS: Data was collected as part of an ongoing survey intended to evaluate trends of overall wellness among medical students at The University of New Mexico School of Medicine (UNM SOM). The survey is administered at the beginning and end of the first year of school, and at the end of the third year of medical school. We used the validated AUDIT-C score to assess student patterns of alcohol use. This AUDIT-C score was then modified to determine differences in risk for problem drinking by gender with scores greater than 0 corresponding to at risk and scores less than 0 were protective. RESULTS: 566 students from the UNM SOM Classes of 2018, 2019, 2020, 2021, and 2022 were invited to compete the well-being survey. 547 responded to the survey for a total response rate of >96%. Of the male students 28.7% met criteria for at-risk drinking by AUDIT-C score compared to 39.3% of the female students. At-risk drinking was not found to correlate with age, degree of selfcare, (p value= 0.056), degree of exercise (p value of 0.7), and burnout (p value=

0.12). At-risk drinking was found to correlate significantly with female gender. Females had an adjusted AUDIT-C score of 0.18 compared to males -0.35 (p-value= 0.001).   CONCLUSION: This study suggests that at-risk drinking is more common among medical students than practicing physicians. Medical students who identify as female are more likely to engage in risky drinking than male medical students.

Physical Activity in Matriculating and Senior Medical Students

Ethan A. Prairie, MSIV, Nancy Shane, PhD, Program Evaluation, Education and Research (PEAR), and Elizabeth C. Lawrence, MD, Internal Medicine and Office of Professional Wellbeing

BACKGROUND: Physical Activity (PA) has been correlated to lower burnout rates and higher quality of life in medical students. This study looks to assess PA during certain phases of medical education and its correlation to burnout, quality of life and self-care.   METHODS: The University of New Mexico School of Medicine (UNM SOM) Medical Student Wellness Survey is administered to all medical students at matriculation, at the end of year 1 and at the end of year 3. This survey includes information on PA, burnout, quality of life, and self-care. PA was assessed in accordance with the Center for Disease Control and Prevention (CDC) recommendations for both strength and aerobic components. Independent T-tests were performed to test the hypotheses that increased PA was associated with lower burnout, improved quality of life, and more self-care. RESULTS: At matriculation, 63% of students met either the strength or aerobic component of CDC PA recommendations. This is compared to 68% of students at end of year 1 and 49% of students at end of year 3. Compared to their non-compliant counterparts, 3rd year students who met CDC PA recommendations had statistically significant lower rates of burnout (4.3 vs. 5.0, P < .01), higher quality of life (6.5 vs. 5.4, P < .0001), and were more likely to engage in self-care activities (4.1 vs. 3.4, P < .0001).   CONCLUSION: Students who meet CDC recommendations during 3rd year have lower rates of burnout, higher quality of life and more frequent self-care than their less active counterparts. 3rd year medical students engage in less PA than their matriculating and 1st year counterparts. This data supports the need to longitudinally study exercise habits in medical students, identify barriers to meeting CDC PA guidelines, and design intervention to encourage physical activity.

Oral Proficiency Language Testing for Medical Students

Felisha Rohan-Minjares, MD, Family & Community Medicine; Erika Zoe Schutzman, MA, Interpreter Language Services; Mattalynn Chavez, MS4, Ricardo Galicia, MS4, Cecilia Valverde, MS4, School of Medicine

Many medical students begin medical school with second language skills and aspirations of becoming bilingual physicians. Up until this year, medical students were not offered any proficiency testing at UNM to determine whether or not their second language skills were adequate to provide safe patient care during their medical training. In summer 2019, Undergraduate Medical Education conducted a pilot project in collaboration with UNMH Interpreter Language Services Department in which 3rd and 4th year students were offered oral language proficiency testing. The response to the offer was quite interesting: students requested testing in many different languages and over 20 students tested.   Most students tested at high enough levels of proficiency to be deemed prepared to provide safe language services in a second language. There were a few students who found that they need more study in the second language to ensure safe patient

communication.   Next steps will be to decide whether this testing will be routinely offered, if it will be required, and how it will be monitored.

Integration of Medical Student and Intern Learners in the Musculoskeletal Reading Room: How We Do It

Jennifer Weaver, MD, Jennifer Smith, DO, Matt Goodstein, DO, Lisa Blacklock, MD, Steven Tandberg, MD, Jamie Elifritz, MD, and Gary Mlady, MD, Radiology

Medical students and interns often have a passive role in the radiology reading room, observing faculty, fellows, and residents. This passive learning environment can often lead to boredom and a poor learning opportunity. We sought a more interactive, dynamic role for the medical students and interns rotating as learners through our musculoskeletal imaging section, to increase the quality of their education and enhance their educational experience.   The purpose of our poster exhibit is: To illustrate our innovative and engaging method of incorporating medical student and intern learners in the radiology experience; to demonstrate how we integrate these learners into the musculoskeletal reading room as active learners, both interpreting imaging cases and creating/dictating current radiology reports.

Development of a Musculoskeletal Ultrasound Education Curriculum for Ultrasound Technologists and Musculoskeletal Fellows: An Adventure in Co-Learning

Jennifer Weaver, MD, Matt Goodstein, DO, Ronald A. Pitt, MD, and Phuong Nguyen, BBA, RDMS, Radiology

Musculoskeletal ultrasound is highly operator dependent. Appropriate training is essential to provide high quality imaging to patients. We developed a combined musculoskeletal ultrasound curriculum for our musculoskeletal imaging fellows and our ultrasound technologists to help provide this training. This combined curriculum allows fellows to teach technologists about anatomy and pathology, and the technologists to instruct the fellows on sonographic technique. After viewing our poster exhibit, the learner should: 1.Understand the benefits of co-learning between musculoskeletal imaging fellows and ultrasound technologists 2.Be able to identify key components of a musculoskeletal ultrasound curriculum for both ultrasound technologists and musculoskeletal imaging fellows 3.Understand how we implemented this curriculum in our department through learning sessions. We will review the learning needs of ultrasound technologists as well as those of the musculoskeletal fellows. The curriculum consists of both a didactic component and a hands on component, covering several joints. The learners are given directed readings. During the lecture portion of the curriculum, anatomy, sonographic anatomy, sonographic pathology, and scan technique are reviewed. During the hands on portion of the curriculum, the faculty member first demonstrates the sonographic technique for the particular joint. Next, the faculty facilitates practice scanning between the ultrasound technologists and the musculoskeletal imaging fellows, who work together to provide education to each other based on their skill sets. Methods of assessment will be discussed. We will discuss how we implemented our multiple monthly learning sessions. We will include survey feedback from ultrasound technologists, musculoskeletal imaging fellows, and musculoskeletal imaging faculty. We will discuss implications and future proposals.

Assessing Interprofessional Education

Heidi Honegger Rogers, DNP, FNP-C, College of Nursing, and James Nawarskas, PharmD, College of Pharmacy

The National Center for Interprofessional Practice and Education states that number one expressed need from educators, practitioners, and researchers regarding interprofessional education (IPE) is about measuring IPE and its effectiveness. Unfortunately, there is no simple solution to assessing IPE since every setting has unique measurement needs and, even within a setting, these needs may change at different times with different groups for different purposes. While this presentation will not recommend which IPE outcomes to measure or which tools to use, it will provide guidance on what to look for when selecting an assessment instrument and will provide foundational information and tips for practical application of IPE assessment. Those interested in measurement of IPE should find this presentation helpful as a first step to lay a solid foundation for research and clinical endeavors.

2019 Update: Developing Quality Interprofessional Education for the Health Professions

James Nawarskas, PharmD, College of Pharmacy, and Heidi Honegger Rogers, DNP, FNP-C, College of Nursing

In order to provide quality and cost-effective care, health professionals must be better prepared to lead and collaborate in interprofessional teams. This is the foundation for interprofessional education (IPE), which is a required element for the accreditation of many health professions programs. The Health Professions Accreditors Collaborative (HPAC) recognizes that accreditation must play an important role promoting quality IPE that leads to effective health outcomes, including encouraging communication and collaboration across professions and the institutions that sponsor educational programs. In February 2019, HPAC developed a document in collaboration with the National Center for Interprofessional Practice and Education to provide guidance so that students are prepared for interprofessional collaborative practice upon graduation. The goals of the provided guidance are twofold: 1. To facilitate the preparation of health professional students in the United States for interprofessional collaborative practice through accreditor collaboration; and 2. To provide consensus guidance to enable academic institutions in the United States to develop, implement, and evaluate systematic IPE approaches and IPE plans that are consistent with endorsing HPAC member accreditation expectations. This presentation will summarize this guidance document in an effort to encourage increased communication and collaboration and to provide guidance on expectations related to quality IPE.

Standardized Patient Assessment of Communications in Pharmacy and Medical Students

James Nawarskas, PharmD, Mikiko Takeda, PharmD, Patricia Marshik, PharmD, Alexandra Herman, PharmD, Mary Vilay, PharmD, Krista Salazar, PharmD, College of Pharmacy, and Audrey Bobick, BSBM, Edward Fancovic, MD, School of Medicine

Use of activities (i.e. objective structured clinical examinations, or OSCEs) involving standardized patients (SPs) is a commonly used method of assessing communication skills in health sciences education is through the. The use of SPs was associated with higher scores on communications assessments and significant improvements on many subsections of a communications assessment tool in pharmacy students. However, these studies used faculty (not the SPs) to assess the students. While the use of SPs as direct evaluators of communication skills is recognized in medical education it is poorly defined in pharmacy education. In addition, interprofessional education (IPE) environments (including the one here at the University of New Mexico) are likely to use the same SPs to help train and assess students coming from an array of health professional programs. This project studied the utility of using SPs as evaluators of communication skills in pharmacy students and determined the extent of the difference in SP assessment of communication skills in pharmacy and medical students. We believe such knowledge will be helpful for designing and assessing IPE activities that involve SP interactions.

Developing a 3-Credit Intensive Online Wound Care Elective

Debra Serrino, MSN, RN, College of Nursing

Wound Care is introduced to pre-baccalaureate nursing students in Level 3 of their five-level nursing education. This has been a 2-hour lecture, followed by 2 hours of clinical focusing on dressings and practicing wound care on a manikin. The BSN students along with the Wound Care teams at UNMH and the VA expressed a desire to provide more education for interested students. This course is a work in progress; taught twice in 2019 in a 7-week intensive format. RN-BSN students and Level 3 and above pre-baccalaureate nursing students have enthusiastically signed up for the courses. The final project requires them to complete a poster, a 2 -page handout and an oral 3 minute presentation in groups of three. The Wound Care topics are preselected by the faculty such as: Pig Skin Grafts; Kennedy Ulcers; Maggot Therapy, etc. Examples of the student work and the class schedule will be shared in this poster.

Changing Tactics: Effectively Engaging Level 1 Nursing Students on Different Campuses

Geraldine Guerra-Sandoval, RN, and Heidi Orehek, RN, College of Nursing

The UNM Health Sciences Rio Rancho campus opened its doors to Level 1 nursing students in the fall semester of 2018. The first cohort consisted of 8 students with the intent to slowly increase admissions. Faculty were challenged to incorporate the Rio Rancho cohort into their level 1 nursing courses. Without increasing faculty numbers, the 8 students on the Rio Rancho campus and the 64 students at the main campus needed to receive the same content and quality of instruction each week in separate locations. Initially, Zoom™, a video conferencing program, was used in the Introduction to Nursing Concepts course to teach on both campuses simultaneously. From the beginning there were issues with the microphones and speakers. While many of these issues were corrected, students on both campuses felt frustrated and stated that the Zoom™ sessions disrupted the flow of class. The Rio Rancho campus students lacked interest in the lectures, and it was difficult to get them to participate in discussions. It was easier for the students on the main campus to participate in discussions however, they often had to repeat the discussion information

for the Rio Rancho cohort.   According to the students' course evaluations for the fall of 2018, Zoom video conferencing was not effective. Faculty decided to change tactics and develop narrated Microsoft PowerPoint presentations for the subsequent semester. Videos and narrated PowerPoint presentations are effective, engaging, and preferred by nursing students (Hampton, Pearce, & Moser, 2017). Students also find narrated PowerPoint presentations to be useful, interesting and state that the presentations contribute to their learning (Lim, Doherty, & Honey, 2011). In addition to the narrated Power Point presentations, class time is now used for further discussion of assigned reading and PowerPoint presentations and learning is enhanced through in-class case studies and other learning activities. The students' evaluations from the fall 2018 and spring 2019 were compared. A 1-to-5 Likert scale was used with 5 being strongly agree and 1 being strongly disagree. The question "The structure of the course encouraged student engagement" scored higher in the spring where narrated power point lectures were used.

A Tale of Two Classrooms: Academic Consistency in Team Teaching Using a Flipped Classroom on Two Campuses with Different Cohort Sizes

Laura Vanyo, MSN, and Maggie Faber, MSN, College of Nursing

As the College of Nursing continues to expand enrollment, innovative instructional methods that ensure consistency and quality in education are imperative. Last year, the Bachelor of Science in Nursing program began a pilot to offer the same program at the Rio Rancho campus. This poster discusses the experience of two faculty with diverse specialties, one certified in obstetrics and one in progressive/critical care, who team-taught the level two course, Nursing 351: Health and Illness Concepts 1. The challenge was to provide active, multisensory learning that was consistent between two instructors, across two campuses, for a wide variety of course concepts. Beginning in spring 2019 semester, 64 Albuquerque and eight Rio Rancho students took this course. A combined Blackboard site provided each campus with the same course materials. The faculty utilized a flipped classroom approach, and alternated face-to-face each week at the two campuses. Class preparation included reading and watching short voiced-over power points. During class, the faculty facilitated a variety of the same active learning strategies. The two instructors were able to communicate via text if questions arose. Over the two semesters, 99% of students passed the class. Student evaluations of the spring semester (summer 2019 not yet available) included many satisfied comments regarding different classroom activities. However, the majority of respondents did not appreciate the flipped classroom, stating no time to prepare and preferring a traditional lecture style. The two faculty members were very satisfied with the consistency of the course. The flipped classroom allowed facilitation of the same classroom activities and active learning strategies appealed to a variety of learning styles. Though students reported dissatisfaction with class preparation, doing so encourages self-directed learning. More evaluation data will assess whether the students appreciated these lessons long term.

The Current State of Undergraduate Nursing Education in New Mexico: Multiple Pathways, Benefits & Outcomes

Judy Liesveld, PhD, PPCNP-BC, CNE, Mary Wright, MSN, RN, CNS, CNE, and Becky Dakin, MA, College of Nursing

The New Mexico Nursing Education Consortium (NMNEC) is celebrating their 10th year! NMNEC has successfully built a statewide coordinated system of nursing education. This poster will explain

the progression of efforts including: 1. Development of a common statewide undergraduate nursing curriculum and course numbering system, 2. Funding efforts, 3. University/Community College Partnerships, 4. Curricular Integrity/Fidelity/Concept Reviews, 4. Legislative Support. We will inform participants of the current state of undergraduate nursing education in New Mexico today: the multiple pathways into nursing education, the benefits, and the outcomes.

Virtual Reality Lab: Getting Real About Educational Technology at Your Library

Timothy Mey, MLIS, Kristin Proctor, Porcia Vaughn, MSIS, Amy Weig-Pickering, Health Sciences Library and Informatics Center

This poster will introduce the Health Sciences Library and Informatics Center's Virtual Reality Lab, a new service brought online by the library in November 2018. HSLIC hopes to promote this new emerging technology and to further the collaboration between HSC departments and the library. This poster will highlight existing use cases at HSLIC as well as use cases in other schools/programs. The library hopes that this presentation will encourage the use of existing virtual reality applications in HSC curricula and serve to open a dialogue regarding possible future projects to develop custom applications. Participants can expect to leave this presentation with a better understanding of virtual reality and the possibilities for its use in Health Sciences education as well as contact information for library personnel to continue the conversation around this emerging technology.

A Kidney Biopsy Simulation Training Program for Renal Fellows: Two Years of Results

Maria-Eleni Roumelioti, MD, DOIM, Jonathan Owen, MD, Christos P. Argyropoulos, MD, Ph.D, Yue-Harn Ng, MD, and Mark L Unruh, MD, MSc, Internal Medicine

Renal interventions could re-foster interest in Nephrology and attract more medical graduates. Percutaneous kidney biopsy (PKB) is an important diagnostic tool and should be taught through simulation. We initiated a PKB simulation training program and designed a 2-year study to examine its effect on the confidence level, the procedural competence and the satisfaction with this training of Nephrology fellows compared to historical controls. All fellows were consented and trained at UNM's simulation center (BATCAVE) with a simulation training model (CAE Healthcare Blue Phantom^{TM}). Trainees' demographics and previous PKB experience were collected. We utilized pre-assigned readings, online videos and hands-on simulation practice. Performance of each trainee during each session was graded with a procedural competence evaluation form. Drs. JO and MER were present in all sessions and completed these forms. Each session lasted 1 to 1-1 1/2 h. Pre-and post-simulation surveys evaluated the participants' confidence level quantitatively on a 5-point Likert scale. All participants completed the satisfaction with PKB simulation experience scale (PKB-SSE). All three 1st and 2nd year renal fellows completed the simulation training in 2018 and two first year fellows completed the training in 2019. Independent of their previous experience on PKBs all renal fellows expressed a high level of satisfaction from their participation (4 to 5) and increased their confidence level. This year's trainees increased their performance level from 2 to 5 and from 1 to 5, respectively. PKB simulation may improve trainees' confidence level and their satisfaction with the training. The procedural competence of the trainees on PKBs will be evaluated during the 2nd year of their fellowship and will be compared to the procedural competence of historical controls.

We expect that the simulation training will reduce the discomfort and minimize the adverse PKB outcomes in patients undergoing PKB in UNMH.

Improving Obstetric Ultrasound Interpreting and Reporting Through a Faculty Mentorship Program for Fellows

Trevor Quine, MD, and William Rayburn, MD, Obstetrics and Gynecology

PROBLEM STATEMENT: To evaluate whether a regularly scheduled weekly engagement/mentorship by a Maternal-Fetal Medicine (MFM) senior faculty member and fellow led to improved ultrasound reporting and collection of pertinent scientific literature for learning by other fellows and faculty. METHODS: The MFM fellow met weekly with the same MFM faculty member. Improvement by the fellow was measured for each report: time to completion, accuracy and adequacy of the impression, clarity of the recommendation, and feedback from the faculty and referring practitioner. Peer-reviewed manuscripts relating to obstetric ultrasound were collected based on topics determined weekly. RESULTS: The fellow adhered to the one hour per week commitment during this six-month trial. The time required to develop a written report decreased with experience. The fellow was able to learn by direct training and outside self-directed learning with minimal investment of time and preparation. A poll of referring providers disclosed their satisfaction with the clarity of the impressions and completeness of recommendations. Relevant scientific literature aided in continuing education and provided tools for future education. DISCUSSION: This "hands-on," case-based experience engaged the first-year fellow in front-line ultrasound interpretation and recommendations with immediate feedback from the faculty member. Steady improvement in efficiently communicating impressions was increasingly well accepted by requesting obstetric providers. An additional benefit was the development of a library of peer-reviewed ultrasound literature for fellow and faculty education.

Virtual Breast Cancer Clinic: An Innovative Interactive Educational Curriculum

Jackie Nemunaitis, MD, Shenthol Sasankan, MD, and Zoneddy Dayao, MD, Medical Oncology

BACKGROUND: Many oncology fellows are unable to spend an adequate time in a breast cancer clinic to fully grasp the practice. The limited cases seen by fellows rarely span the full breadth of typical clinical scenarios and treatment plans are lengthy, nuanced, and complex. RESEARCH QUESTION: Will the creation of an interactive virtual breast cancer clinic, using real patient cases, improve fellow understanding of important breast cancer concepts, as determined by the American Society of Clinical Oncology Self-Evaluation Program (ASCO-SEP)? METHODS: The course consists of 6 weekly, 1 hour sessions. We established the curriculum based on guidelines from the National Comprehensive Cancer Network. We then identified real patient cases that represent the most common clinical scenarios. We included de-identified radiographic images, pathology, and laboratory values to enhance the impression of real-world clinical practice. RESULTS: ASCO-SEP questions were used as a pre-test and post-test to determine efficacy. Pre-test scores were 63.5%. Post-test scores increased to 85%. For the next session we plan to include subjective questions regarding comfort level with breast cancer management. IMPACT: Breast cancer is a highly prevalent disease that will constitute a large portion of practice for future oncologists. It is also highly represented on the ABIM board exam. Unfortunately, clinical and academic demands often limit the necessary time to become familiar with this complex practice. Virtual experiences that simulate real-world scenarios can help establish a strong understanding and comfort level with caring for breast cancer patients with minimal time demand.

Does Peer Education Affect our Prescribing Practice? Impact of Educational Intervention on the Prescribing of Medication Assisted Treatment for Alcohol Use Disorder

Anna Garcia, MD, Psychiatry, and Eileen Barrett, MD, Internal Medicine

BACKGROUND: Alcohol use disorders (AUD) are a common problem in the U.S and are associated with increased rates of early mortality and substantial morbidity. AUD and related complications are a common reason for ED visits, hospital admission, and readmission. Medication assisted treatment of AUD is effective, safe and evidence-based. Nationally and in New Mexico, effective treatment for AUD is underused. Numerous studies have demonstrated the utility of naltrexone and acamprosate, both FDA approved for the treatment of AUD. The hallmark meta-analysis highlighting the benefits of these medications was published in 2014 and there were multiple UNM hospitalist educational events on the treatment of AUDs starting in 2015. We aim to study the effect of these.   METHODS: We compared the number of naltrexone and acamprosate prescriptions provided to patients discharged from an adult internal medicine hospitalist service over the course of a 5 year period beginning in 2014, and each subsequent year as measured via EMR queries. Peer education on best practices in the treatment of AUDs attended by UNM hospitalists and trainees included grand rounds, hospital medicine Best Practices didactics, Hospitalist Training Track didactics, journal article review, and professional society meetings. A handout was developed and disseminating explaining these medications including their indications, risks, and benefits. RESULTS: Prescriptions for naltrexone and acamprosate increased from 1-2 per quarter to up to 28 per quarter. CONCLUSION: The number of naltrexone and acamprosate prescriptions increased over the designated 5-year period in direct correlation with educational interventions, although absolute numbers were low. This helps demonstrate the importance of continued education regarding best practices for treating AUDs, while also highlighting limitations and opportunities for hard-wiring processes to improve prescription rates.

Predictors and Barriers to Faculty Scholarly Activity in United States Urology Residency Programs

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OBJECTIVE: To determine factors associated with scholarly activity among faculty members at urology residency programs. METHODS: An online survey was sent to all urology residency program directors. The survey assessed program characteristics, support and barriers for scholarly activity, and faculty participation in research and mentorship of residents. A linear regression analysis was used to identify the factors associated with faculty scholarship. Scholarly activity was defined as original research studies, systematic reviews, meta-analyses, case series and case reports. RESULTS: The survey was sent to 134 programs with a 36% response rate. Faculty attitudes toward conducting scholarly activity and lack of formal research curriculum were barriers to participation in scholarly activity, p<0.001 and p=0.05 respectively. Faculty attitudes were also a barrier to mentorship of residents (p=0.0038) and publication of at least one paper (p=0.0035). Having a statistician was positively associated with publications (p=0.062) and presentations (p=0.032). A minimum requirement of a 'local presentation' (p=0.04) and chairman support (p=0.015) were positively associated with presentations at a conference.   CONCLUSIONS: This study identified resources and barriers to faculty member scholarly activity. The production of scholarly activity by faculty is increased by a chairman who supports research, availability of a

statistician, submitting a manuscript as a resident requirement, and a dedicated research track for residents in the program. Urology residencies seeking to prioritize scholarly activity should consider these factors.

Impact of an Advanced Cardiac Life Support Process Improvement Initiative on Leadership Role Comfort

Madison Fletcher, BS, MSIII, Annaleigh Boggess, MD, Danielle Albright, PhD, Kim Bolton, DNP, Emergency Medicine; Jessica Fontanez, BSN, School of Nursing, and Tatsuya Norii, MD, Emergency Medicine

Extracorporeal Cardiopulmonary Resuscitation (ECPR) in the Emergency Department (ED) requires optimized advanced cardiac life support (ACLS). An ACLS leader monitors compressions, orders medications, performs rhythm checks, directs defibrillation, and times events. This role was reassigned from physicians to nurses. Nurse led ACLS may allow physicians to assess ECPR inclusion criteria. There is limited research on ACLS leader role comfort for nurses. We hypothesized an ECPR initiative in the ED would improve personnel comfort in the ACLS leader role. ECPR initiative implementation included didactics and simulation training. A survey was distributed to ED residents, attending physicians, and nurses, and included six Likert-scale items on comfort with the ACLS leader role. Surveys were administered 6 months prior to and 3 months after implementation. There were 91 respondents at baseline and 100 respondents in the follow-up, resulting in a 43% and 48% response rate, respectively. We used Mann-Whitney tests to compare ordinal variables and non-parametric tests to assess the impact of initiative completion and level of experience on a cumulative score for comfort. We observed no significant changes for the six comfort items from the baseline survey regardless of respondent group. In the post-period, nurses (22.6/30) and resident physicians (23.9/30) had significantly lower mean cumulative comfort scores when compared to attending physicians (27.5/30) ($p < .001$). Experience leading ACLS in the past 12 months was a significant predictor of cumulative comfort score for nurses in the post-period ($p = .029$), even when completion of ECPR requirements was controlled. While most report comfort acting in the role of ACLS leader there was no significant improvement post-initiative. These findings, combined with the significance of experience leading ACLS on comfort for nurses and resident physicians, suggest continued experiential learning and opportunities for simulation.

Measurement-Based Treatment to Target for Depression: Use of PHQ-9 in Primary Care

Pooné Haghani Tehrani, MD, Psychiatry

Measurement-based treatment is increasingly used for common behavioral health conditions, like depression. The screeners help identify people who may not otherwise be recognized as needing care. They also help to find out whether the symptoms are improving, and which specific symptoms are or are not improving. Treatment to target means that we adjust our treatment plan based on symptom measures until we reach 50% reduction (response to treatment.) This prevents treatment inertia as it helps the provider and the patient to know if the patient is having a full response, partial response, or no response. One of the screeners is PHQ9, which is free to use and well validated for depression. At our family practice clinic, evidence in support of measurement-based treatment to target and advantages of PHQ9 (including examples of the clinic's patients who benefitted from use of PHQ9) were presented to providers. The goal was to increase their use of

PHQ-9. To measure the outcome, a pre- and post-intervention anonymous survey was conducted. The response rate was 77.7% for pre-intervention survey and 100% for post-intervention survey (2 of the providers relocated before the post-intervention survey.) Before the intervention the providers reported use of PHQ9 to screen for depression was: Very often 28.57%, Often 14.29%, Sometimes 42.86%, Seldom 14.29%, I do not use PHQ-9 at all 0.00%. It improved to: Very often 40%, Often 20%, Sometimes 40%, Seldom 0.00%, I do not use PHQ-9 at all 0.00% after intervention. Their use of PHQ9 to monitor depression was: Very often 0.00%, Often 28.57%, Sometimes 28.57%, Seldom 42.86%, I do not use PHQ-9 at all 0.00% before the intervention. It improved to: Very often 0.00%, Often 40%, Sometimes 60%, Seldom 0.00%, I do not use PHQ-9 at all 0.00% after the intervention. In conclusion, awareness of the evidence on advantages of screeners for depression could increase primary care providers' use of them in screening for and monitoring depression.

Appropriate Use Criteria for Echocardiography

Karla B. Almaraz, MD, Jeromy P Yatskowitz MD, and Andy Huang MD, Internal Medicine; Alexander J Vold, MSIV

Transthoracic Echocardiography (TTE) is one of the most common diagnostic imaging tests used in Cardiology. It is portable, noninvasive and provides important data regarding diagnosis and management of many cardiac conditions. In recent years TTE has had an increased in popularity for its use in both inpatient and outpatient settings. This has resulted in an increase of inappropriate use leading to overutilization of resources. At our institution, University of New Mexico Hospitals we evaluated the prevalence rate of appropriateness of TTE with a quality improvement project. During the first phase of the project 100 TTEs each were randomly selected in both the outpatient and inpatient settings. We evaluated appropriateness based on the AUC of TTE published in 2011 by the American College of Cardiology. Results demonstrated inpatient TTE orders had reduced number of inappropriate echo orders compared to outpatient echo orders. The percentage of inappropriate TTE orders in the outpatient setting was unacceptably high approaching 30% of all outpatient TTE requests. Recent studies have shown that education of physicians concerning the appropriate use of echocardiography can improve resource utilization in clinical practice. The purpose of the second phase of this quality improvement project is to reduce the number of inappropriate TTE orders in the outpatient settings at our UNM clinics through multiple and continued mechanisms. This will be achieved through educational material, EMR modifications, follow up audit reports and feedback sessions.