Mark A. Clark, PhD
Institute for the Medical Humanities
University of Texas Medical Branch

Demonstration Submission

Autobiographical Composition and Professional Identity Formation:
A Pilot Course

Introduction: Recent recognition of the need for reform of medical education has given rise to consideration of Professional Identity Formation (PIF) and the curricular strategies called for to promote it. By means of a phenomenological inquiry, accomplished through dialogical narrative analysis, this study examines the ways that medical students’ autobiographical composition and their ensuing discussion about these writings manifest enabling or disabling interpretations of experience related to identity formation, reveal fears and desires that impede or promote personal development, and signal developmental growth.

Methods: Over the course of a SOM elective, students are provided with 10 prompts that encourage them to reflect, in writing, upon experiences related to specific dimensions of PIF. They read these reflections aloud in class and obtain feedback. The texts and pertinent portions of class discussions have received close narrative analysis for the articulation of experiences related to components of PIF and for verbal signals of change with respect to these components.

Results: For purposes of this presentation, analysis of selected student texts generated from the pilot use of the prompts will be discussed. As a result of the pilot, an electronic version / module of the course will be developed, and progress of this development will be discussed in the presentation.

Conclusions: Pilot implementations of the prompts have yielded autobiographical reflective writing that, by means of narrative analysis, reveal that such writing can indeed be an important means of cultivating components of PIF. These preliminary findings suggest that sophisticated analyses of autobiographical composition can reveal effects of the writing activity upon identity development. The findings also suggest nuanced pedagogical approaches to the endeavor as well as new methods of assessing formation progress: these will also be discussed in the presentation.
1a. Name(s) of presenter(s): Lisa M. Cleveland PhD, RN, PNP-BC, IBCLC; Bonnie S. Taylor MA, CAPM; Linda G. Solis, MA

1b. School affiliation(s): The University of Texas Health Science Center at San Antonio

2. Contact e-mail address: clevelandl@uthscsa.edu

3. Title of submission: Baby Boy Jones: Using Technology to Engage Nursing Students in an Interactive Case Based Learning Activity (CBLA)

4. Indicate type of submission: Demonstration

5. Body of abstract:

Introduction: Case-based learning activities (CBLA’s) are an effective strategy for teaching clinical reasoning and decision-making skills in the health sciences. Baby Boy Jones, our prototype CBLA focused on newborn infection, is an interactive, unfolding case scenario within the context of interprofessional care, deployed as a web-based independent learning activity.

Description: The CBLA, situated in the undergraduate maternal-newborn nursing course, was designed using SoftChalk® e-learning, authoring software and delivered using the Blackboard learning management system. Content addressing learning objectives was presented using branching decision points, immediate feedback, opportunities for reflection, and formative assessment. Identical pre/post-activity assessments were used to measure learning outcomes and a survey was used to measure attitudes.

Outcomes: Students (N=342) participated in the Baby Boy Jones CBLA; 315 completed all 10 items of the pre and post-activity assessments. Findings revealed a statistically significant difference in their scores (z=-11.03, p<.001) indicating that students performed better on the post assessment. In addition, 195 students responded to the attitude survey. Results showed that students agreed the CBLA was relevant to their learning needs for the course (94%) and focused on the learning objectives (95%).
Abstract Submission to 10th Annual Innovations in Health Science Education Conference

Wendy B. Kang, M.D., J.D., Curt Wengel, MS III, Joseph D. Peterson, MSII , Blas Catalani, M.D., Omid B. Rahimi, Ph.D.

School of Medicine, Department of Anesthesiology, University of Texas Health Science Center at San Antonio, San Antonio, TX, Department of Cellular and Structural Biology, Department of Anesthesiology, LSU Health Sciences Center-Shreveport, Shreveport, LA.

Contact: Wendy B. Kang, M.D., J.D. at Kangw@uthscsa.edu

Title: Integrating Anatomy into Clinical Care of Patients for 24/7 Learning through Videos

Type of Submission: Poster and demonstration of anatomical videos

Educational Objectives: The cooperation between the Departments of Cellular and Structural Biology and Anesthesiology in creating instructional anatomical videos of nerve blocks promotes multiple benefits. Medical students understand the relevance of anatomy to future clinical care of patients. Resident physicians can review anatomical anatomy prior to performing nerve blocks on surgical patients. Their learning occurs 24/7, at their convenience and pace, through multiple modalities of cadaver dissections correlated with live patient surface landmarks, ultrasound and graphic drawing as captured on video. Faculty is freed to focus on individualized teaching while minimizing needless repetitions of basic information. This clinically relevant way of learning and teaching ultimately promotes excellence in the care of real patients.

Project Description/Outcome: Three instructional videos have been created by medical students under the guidance of faculty. A cadaver airway anatomy video discusses application of airway managements and intubation to patients. This video has been shared with three Anesthesiology departments across the nation. A “Lower Extremity Nerve Blocks” video has been uploaded onto AnesthesialIllustrated.org, a website managed by the Department of Anesthesiology at Stanford University to promote access by third world Anesthesia departments to current clinical practices. A “Upper Extremity Nerve Blocks” is being finalized for review by medical students soon. The latter two videos are the work products of medical students who intend to receive their M.D. degrees with Distinction in Medical Education.

Conclusions: Fostering strong connections between basic and clinical science departments encourages clinically relevant learning by students and resident physicians. Scarce invaluable resources such as body donations and time of trainees and instructors are optimized through instructive videos which can be accessed easily on intranet sites. Ultimately, the clinical care of real patients is optimized. Other medical specialties may benefit from developing similar types of interdepartmental cooperation and instructional videos.
**10th Annual Innovations in Health Science Education Conference Abstract Submission**

Wendy B. Kang, M.D., Carmen Hinojosa-LaBorde, Ph.D., Department of Anesthesiology, Univ. of TX Health Science Center at San Antonio, San Antonio, TX.

Contact: [Kangw@uthscsa.edu](mailto:Kangw@uthscsa.edu)

**Title:** Why put the Cheese in an Orange? Teaching Tactile Sensation of the *Ligament Flavum*

**Type of submission:** Research Poster and demonstration

**INTRODUCTION:** Teaching medical students and resident physicians to become proficient in performing lumbar punctures and subarachnoid anesthetic blocks, while maintaining patient safety, can be challenging to them and to instructors. Tactile teaching enhances acquisition of knowledge provided through visual aids and verbal lectures to allow success in development of motor skills.

By using a medium which simulates the tactile tension of the *ligamentum flavum* and *dura*, students can be taught to correlate abstract knowledge of the neuraxial anatomy to the “feel” of a needle passing through those neuraxial ligaments to perform diagnostic or anesthetic procedures.

The objectives of the teaching workshop are to: (1) reinforce knowledge of neuraxial anatomy; (2) encourage motor skills needed to perform a subarachnoid injection; (3) focus the student’s attention on feeling the firm density of a simulated *ligamentum flavum* followed by a subtle “pop” akin to traversing the *dura/arachnoid* membranes.

**MATERIALS and METHODS:** The teaching model is constructed from a thin slice of hard cheese covered with parchment paper on its anterior side embedded within an orange. Landmarks simulating iliac creases and lumbar spinous processes are drawn on the foil covering the back of the orange-patient to maintain “anatomic” orientations.

During the teaching workshop:

- Students are given basic knowledge about the central neuraxial spine and different layers of tissues through anatomical slides and a brief lecture.

- Students assess the skin landmarks drawn on the back of the “patient”, the orange. Using “local anesthetic” of red food coloring in their ¼ inch, 25g needle and 3 ml syringe, they penetrate the white pulp of the orange to “anesthetize” the simulated skin and subcutaneous layers.

- The 25g spinal needle is advanced through the “anesthetized” area until the firmness of the hard cheese simulating the ligament is sensed. A tiny sharp snap of the parchment paper simulating the *dura/arachnoid* follows. The instructor emphasizes the operator’s conscious ability to recognize the ligamentous firmness, that the targetted cerebral spinal fluid is very close. The proceduralist’s vigilance is heightened through this simulation to ensure the safety of an actual patient.

- Blue food coloring in a 5ml syringe is injected “intrathecally”, in front of the parchment paper.
-Advanced level students can use green food coloring to inject “epidurally” with a Tuohy needle and loss of resistance syringe immediately after passing through the hard (cheese) ligament but before the dura/arachnoid (parchment paper).

**Performance Assessment:**

**Visual:** The oranges are sliced sagittally, close to the spinal needle to visualize the tip of the spinal needle and locations of the different food colorings: blue should be in front of the parchment paper, green should be between the cheese and parchment paper, red should be in the “adipose” pulp.

**Mental:** A five question pre-test related to central neuraxial anatomy and subarachnoid blocks is administered prior to the workshop to survey knowledge base. The same questions on a Post-test assess improvements in knowledge. Each student’s pre- and post-test scores are compared.

**Student Satisfaction:** Participants are asked three questions attached to the Post-test surveying their feedback on the simulation workshop.

**Results:** Will be in Table format

**Conclusions:** An orange with an imbedded slice of thick hard cheese and parchment paper reproduces the tactile tension of the ligamentum flavum and dura/arachnoid membranes.

A simulation workshop using this medium successfully taught medical students how to correlate abstract knowledge of the neuraxial anatomy to the “feel” of a needle passing through important neuraxial ligaments. Patient safety was maintained while students learned new motor skills and tactile sensations on inexpensive and inanimate objects in a fun environment.
NAMES OF PRESENTERS AND SCHOOL AFFILIATIONS:
Thomas S. King, Ph.D.
Distinguished Teaching Professor
Associate Professor
Departments of CSB and OB-GYN
The University of Texas Health Science Center at San Antonio, Texas

Erin Nelson, M.D.
Associate Professor
Department of OB-GYN
The University of Texas Health Science Center at San Antonio, Texas

Contact: kingt@uthscsa.edu

TITLE:
The Human Placenta: Teaching Placentation and the Structure of the Term Placenta to Medical Students

TYPE OF SUBMISSION:
Poster Poster-Discussion or Demonstration (video + histopathology portfolio)

ABSTRACT:
The human placenta is very complex in terms of its development, structure and function. Despite its vital importance, the subject of placental development is often addressed only superficially in the medical school curriculum. To address this, we have developed a video program which takes the student from watching an actual placental delivery in Labor & Delivery, through an animated summary of the major steps in placental development and finally through a hands-on demonstration of the major structural features of a term placenta, umbilical cord and chorioamniotic membranes. We anticipate utilizing this video as a required adjunct during the female reproductive system module taught to our second year medical students as well as a review for more advanced medical students and residents. The video will serve as a primary source of material along with an interactive (audience response system, ARS) lecture addressing the normal human placenta prior to the histopathology laboratory on gestational trophoblast disease in the same module. Students will assess their understanding of the subject using an online formative quiz in multiple choice format. Student mastery of the material will be formally assessed via written module examination in multiple choice format. Future plans include the development of additional instructional videos and teaching materials related to clinical application (pathologies associated with premature rupture of membranes, multiple pregnancy; abnormal placental development; gestational trophoblast disease).
Anil D Kulkarni*,
(Marc Freemont, Maxime Vaeremans, Shirchin Demberel, Namdag Bira, Anarakhuu Bold-Elderene)

Affiliations: UTMS Houston; BioSciences, Belgium; Mongolian State University of Agriculture; Health Sciences University of Mongolia; and National Cancer Center of Mongolia

Correspondent: anil.d.kulkarni@uth.tmc.edu

Title: Ethnic and Cultural Nutrition in Global Health Arena: Investigations of fermented food products and GI oncology outcome in Mongolia.

Submission Type: Poster or Poster Discussion and Demonstration

Abstract:

Introduction: Study is undertaken to examine the influence of gut microflora on low incidence of colorectal cancer and high incidence of upper GI cancers (esophagus, stomach, liver etc.) in Mongolian population with comparable diet of high meat/fat/calorie content to that of American diet. How a dietary practice in Mongolian climatic conditions can affect the two ends of GI tract so differently. Independent from epigenetic reasons these types of cancers may have relationship to life-style diseases including diet and food intake. Methods: Our critical observations were related to use & consumption of fermented raw milk and its fermented products made from various animals is very high. This project is being developed in collaboration with VF Bioscience, Belgium; Mongolian State University of Agriculture; Health Sciences University in Ulaanbaatar; National Cancer Center of Mongolia, and University of Texas Medical School at Houston. Aim is to collect available fermented food products for laboratory culture and evaluation of microorganisms & how it changes gut flora. Outcome: Our collaborators have collected samples of milk & products and are being analyzed to isolate various strains of lactic acid bacteria. When completed isolated unique strains will be tested in preclinical trials using in vivo models of experimental cancers. Further we will study to decipher actual mechanisms for the influence of gut flora in humans. Current Global Health Initiatives in American universities lack role of diet/nutrition; especially ethnic and cultural nutrition and food consumption, and their impact on health and disease around the Globe. Conclusion: Adequate and proper nutrition is critical to combat communicable and non-communicable diseases around the Globe and it is imperative to understand the ethnic and cultural nutrition practices in delivering and providing health care. For Global Health students this project will be sustainable for further studies and applications. Preliminary results will be presented.
**Name(s) of presenter(s):**

Josh Laird, MD; Bryan Darger; Sara Miller, MD; Sam Luber, MD, MPH; Yash Chathampally, MD, MSc

**School affiliation(s):**

UT Health Science Center at Houston

**Contact email address:**

Joshua.C.Laird@uth.tmc.edu

**Title of Submission:**

Transvenous Pacing Video Model for Facilitated, Successful Transvenous Pacemaker Insertion in the Emergency Department

**Indicate type of submission (choose one):**

<table>
<thead>
<tr>
<th>Poster</th>
<th>Poster or Poster-Discussion</th>
<th>Demonstration</th>
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**Body of abstract (300 word maximum):**

Insertion of a transvenous pacemaker (TVP) in the emergency department (ED) can be a lifesaving measure, but is an uncommon, complicated procedure for ED residents. Appropriate placement of a TVP has multiple steps that must be accomplished in appropriate order. Traditional TVP education typically involves procedure texts and didactics prior to ED TVP placement. Due to the relative infrequency of performance and the complexity of the procedure, attaining competence of independent performance is difficult for most residents. We created a short, simple, web-based video that covers these technical details, ordered steps, and nuances that can be quickly accessed on a smartphone and reviewed to support successful completion of TVP insertion and utilization at the bedside. To test and train residents and medical students we have developed a pacing phantom model that simulates the procedure including ECG waveform based anatomical localization. Eighteen emergency medicine first year residents (interns) were trained on this model during orientation and completed the procedure correctly. To test the ability to reproduce the procedure 4 months after orientation, four interns were randomly selected to complete a transvenous pacemaker by using a traditional textbook and four interns were tested on the model using our web-based video and tested with a procedure checklist. All interns were able to use the smartphone video without missing items on the checklist, while those with traditional materials had many errors in the procedure. These errors resulted in time consuming trial and error correction and in a few cases, failure to complete the procedure. Thus, we successfully demonstrated that smartphone video support helps resident perform rare, complex procedures like TVP placement.
They also felt the activity incorporated decision-making and feedback (92%) and was visually compelling and thought provoking (85%). Students agreed the activity reflected current theory and evidence-based practice (96%) and they learned content more effectively for transfer to the clinical setting using this method of instruction (82%). Lastly, following the activity, students felt more capable of identifying an infant at risk for developing infection and more capable of providing nursing care for that infant (86%).

**Conclusions:** The *Baby Boy Jones CBLA* is an example of innovation in health sciences education demonstrating student achievement of learning objectives and a high degree of student satisfaction. Continued exploration of this method of instruction is strongly encouraged.
Presenter: Stephen Pun; Christine Andre, M.D.
School: UT-HSC San Antonio
Contact: puns@livemail.uthscsa.edu
Title: Mentoring Students in the Online Era
Type of submission: Demonstration

Abstract:
Students in the modern age live in a world of internet, social networks and mobile devices. Reaching these students require educators to keep up with modern modes of communication. At UTHSCSA, Veritas is the School of Medicine’s student career advising and mentoring program. We have created a student run website that is a virtual gathering point for students and mentors alike, which fosters a sense of unity for such a large program of over 800 students. The interactive website utilizes several methods to engage medical students to explore their future career options, display opportunities for various developing student interests and maintain an ongoing dialogue. The Veritas website has undergone three iterations since its creation one and a half years ago, each time focusing progressively more on the student experience and providing more resources. In its most recent version, the website allows visitors to keep track of upcoming events, discover more student and faculty mentors, review current standings of each society on a scoreboard, look at galleries of videos/photos from past events and peruse resources for student career development. Resources include: links to highlight various resources from AAMC (Careers in Medicine, Characteristics of Entering Residents, Charting Outcomes of Residency Match, Choices Newsletter) and videos with supplemental electronic materials from recent live presentations (AAMC’s campus visit for careers in medicine, mock interview).

With future development of the Veritas advising system, we aim to have a program that students find easy and seamless to engage with and is useful for its resources and modern modality of engagement. Survey data from student users is forthcoming. Currently in development are Q&As with residency directors, a forum for anonymous question submission with corresponding answers and a directory of available student services (interest groups, research opportunities and volunteer opportunities).
1a. Name(s) of presenter(s):
Rajiv Rajani MD, Shah Khan MSII

1b. School affiliation(s):
University of Texas Health Science Center at San Antonio

2. Contact email address:
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khansz@livemail.uthscsa.edu

3. Title of Submission:
Bone tumor iBook: an interactive, mobile resource for orthopedic residents

4. Indicate type of submission (choose one) = Demonstration

<table>
<thead>
<tr>
<th>Workshop (indicate length)</th>
<th>Small group (breakfast round table)</th>
<th>Interest group</th>
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5. Body of abstract (300 word maximum)*:
Orthopedic residents are expected to understand the presentation, diagnosis and treatment of bone tumors. The low incidence of these tumors in the general population makes it difficult for residents to garner clinical experience with bone tumor patients. Residents may feel unprepared to manage a patient presenting with the symptoms of a bone tumor. Established mobile resources e.g. Epocrates or Medscape also do not provide adequate clinical guidance for residents. We created the Bone tumor iBook as an interactive, mobile resource for residents to access and utilize in clinical scenarios. The objective of our workshop is to describe and outline the process of transforming primary material, imaging and other media to create an iBook. This workshop will help participants learn how to create and distribute an iBook along with deciding if an iBook is the optimal format for their information.

I. Introduction to eLearning
   a. Reusable learning objects
   b. Mobile strategies
   c. iBook/HTML5/Adobe InDesign

II. Demo of Bone Tumor iBook

III. Transfiguration of existing material/imaging/media
   a. Collating primary material
      i. Text
      ii. Images
      iii. Videos
   b. Python Demonstration
   c. iBook Author
1. **Names of presenters and school affiliation:**

Chad Stasik, MD; Lauren Kane, MD; and Edward Sako, MD, PhD
Department of Cardiothoracic Surgery
University of Texas Health Science Center – San Antonio

2. **Contact email address**

stasik@uthscsa.edu

3. **Title of Submission:**

Using an online learning management system in surgical education

4. **Type of Submission:**

Demonstration

5. **Body of abstract**

Educating medical students on a surgical service poses many challenges for the students and educators alike. The daily schedule is unpredictable and “free” time for didactics is limited. In addition, students have different learning styles and their needs are not all best met by a single lecture or reading assignment. We sought to develop a flexible, online, self-paced curriculum to educate students using several different formats, including multimedia presentations, written summaries, and quizzes, during their clinical rotation in Cardiothoracic Surgery.

Faculty members and residents in the Department of Cardiothoracic Surgery were assigned content areas based on their interests and expertise. Each team was asked to construct a 20-minute presentation using Microsoft PowerPoint. Narration and quiz questions were added using Articulate Presenter. An executive summary of the information was provided in a Microsoft Word document. Content was then uploaded to Moodle, an online learning management system, and students were given access to the information through the department’s web site.

Content is still being developed, but early student feedback has been positive. This type of project takes a large up-front commitment on the part of the faculty, but once created and fully instituted we believe we will be able to achieve measurable success in terms of improved student satisfaction and higher scores on their evaluations of the service. We also plan to expand the audience to include residents and nurses. Obstacles to curriculum development include limited time availability of the surgeons and a learning curve in using the course creation software and learning management system.
Presenters: Phylliss M. Chappell, M.D., Jennifer Healy, D.O.

Affiliation: UT Health Science Center San Antonio, Audie Murphy South Texas Veterans Health Administration

Contact: chappellp@uthscsa.edu

Title of Submission: Communicating with Dying Patients and their Families: Multimedia Training in End of Life Care

Abstract: The need for end of life education to prepare medical students to communicate with dying patients and their families and to cope with issues of death and dying, is well recognized. This project examines the effectiveness of a unique, multimedia curriculum focusing on end of life patient/family care.

Educational Objectives:

I. To increase the learners facility, confidence, and willingness to approach end of life discussions with dying patients and their families.

II. To increase the learners’ knowledge of the needs of patients and their families during the last days and hours of life.

Project Description: This innovative curriculum was completed during 3rd year medical students ambulatory rotation and included: pre/post-tests, an online case-based module, which focused on EOL patient/family care, faculty demonstration/role-play using quick-review bedside teaching tool (accessible using iPad/smartphones) with a standardized-patient/family-member, and learner role-play using bedside teaching tool.

Outcomes: Results: Matched Pre/Post-Test=222. Female=49.1%. Caucasian=60.1%. Asian-American=18.5%. Hispanic=16.7%. African-American=3.6%. There was a statistically significant increase in positive attitudes toward caring for dying patients, willingness to discuss death and dying with patients and their families, and recognition that families need emotional support and involvement in a dying patients care. There was a statistically significant increase in the students’ uncertainty about including patients in decisions about their own physical care and whether it is beneficial for the dying person to verbalize his/her feelings.

Conclusions: Exposure of Medical Students to an end of life curriculum increases learner comfort and willingness to care for dying patients and their families and helps students appreciate the benefits of caring for patients in their last hours of life.
Template for Submissions

| 1a. | Name(s) of presenter(s): | Alice Gong, MD¹  
Charleta Guillory, MD²  
Debra Freedenberg, MD, PhD³  
Judith Livingston, MEd, MCHES⁴ |
|-----|------------------------|-------------------------------------------------|
| 1b. | School affiliation(s): | 1. University of Texas Health Science Center at San Antonio  
2. Baylor College of Medicine  
3. Texas Department of State Health Services |
| 2. | Contact email address: | livingstonj@uthscsa.edu |
| 3. | Title of Submission: | Implementing an Innovation in Newborn Screening: A Model that Works |
| 4. | Indicate type of submission (choose one): | Poster or Poster-Discussion |
| 5. | Body of abstract (300 word maximum): | Overarching Project Goal: Implement an educational program to improve readiness for a public health mandate for critical congenital heart disease newborn screening (CCHD NBS) in Texas.  
Educational Objectives for the Project: Newborn nursery nurses are able to: (1) discuss the rationale for CCHD NBS; (2) identify the steps for screening and follow-up using an algorithm; and (3) effectively explain CCHD NBS to families.  
Project Description: CCHD is the leading cause of death in infants less than 1 year in the U.S. CCHD NBS using pulse oximetry can identify some infants with CCHD before they show clinical signs. Early diagnosis and timely intervention can significantly reduce newborn morbidity and mortality. The Texas Pulse Oximetry Project (TxPOP) developed and piloted an educational program for newborn nursery nurses. Thirteen birthing facilities in South Texas and Houston, with access to varied resources, participated in the program. Nurse champions were identified as lead trainers at each facility. They also ensured screening compliance and quality assurance by acting as resource nurses and facilitating reporting CCHD NBS results. Nurse champions contributed to the development of the curriculum and an educational tool kit. A program evaluation, comprised of pre- and post-tests, was used to assess the effectiveness of the education. A total of 215 nurses at the 13 participating hospitals participated in a one-hour, CNE-approved nursing training.  
Conclusion: Comparison of pre- and post-test results demonstrated improvement in nurses' knowledge. Data on screening results, collected for six months following the education, indicated high compliance and competency in CCHD NBS. Results demonstrate the value of nurse champions in creating a robust, comprehensive educational program standardized to implement CCHD NBS utilizing pulse oximetry. This trial educational program using the model of nurse champion can be translated to other Texas birthing facilities. |

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Authors and Affiliations:

1. Elizabeth Hanson, MD  
   UT Health Science Center San Antonio

2. Jeanine Von Stultz, PhD  
   Bexar County Juvenile Probation Department

3. Juan Parra, MD  
   CentroMed San Antonio

4. Richard Garcia, MSW  
   Bexar County Juvenile Probation Department

5. Jon Courand, MD  
   UT Health Science Center San Antonio

Contact Email:  
HansonE3@uthscsa.edu

Title: Creating a resident educational experience in juvenile justice: a partnership between UTHSCSA Pediatrics and the Bexar County Juvenile Probation Department

Type of Submission  
Poster or Poster-Discussion

Body of Abstract:

EDUCATIONAL OBJECTIVES:
Approximately 18% of children are arrested at least once by age 18. However, pediatric training rarely includes exposure to the juvenile justice system. As part of our advocacy curriculum, we designed a one-week immersion experience in the Bexar County Juvenile Probation Department (BCJPD). After completing this experience the learner will be able to:
1. Discuss the social and health risks of youth in the juvenile justice system
2. List resources available to mitigate those risks
3. Build partnerships for future advocacy projects

PROGRAM DESCRIPTION:
The experience was designed collaboratively by UTHSCSA Pediatric faculty and BCJPD staff. Residents attended a variety of activities including tours of detention facilities, intake assessments, community programs, and court proceedings. An online module with an embedded quiz provided background information on the juvenile justice system and associated health risks. At the end of the week, residents completed open-ended written feedback forms and a written reflection. Residents met with both a BCJPD staff member and a UTHSCSA faculty member for debriefing and feedback following the experience.

OUTCOMES:
Twenty residents have completed the experience thus far. Residents provided overwhelmingly positive feedback, describing the experience as “interesting”, “eye-opening” and “enjoyable.” In their reflections, residents thoughtfully discussed themes such as prior biases and misconceptions, the inner conflict in labeling a child as an “offender”, and the role of family and social context in juvenile offenses. Two residents were awarded a grant from the American Academy of Pediatrics to fund a collaborative community advocacy project that grew out of this experience.

CONCLUSION:
We have documented feasibility and engagement of learners for this collaborative experience in juvenile justice. Future steps include pre- and post-testing, systematic analysis of written reflections and implementation of observation tools to measure the impact of this experience on resident knowledge, skills and attitudes.
1a. Name(s) of presenter(s):
Dr. Darrow Khosh-Chashm MD PGY 2 Resident at the University of Texas Health Sciences Center Houston
Dr. Aqeel Hashmi MD, Associate Professor of Clinical Psychiatry at the University of Texas Health Sciences Center Houston

1b. School affiliation(s):
University of Texas Health Sciences Center in Houston

2. Contact email address:
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Aqeel.Hashmi@uth.tmc.edu

3. Title of Submission:
Civil Commitment: Development of a Competency Based Curriculum for Psychiatry Residents

4. Indicate type of submission (choose one):
Poster [ ] Poster or Poster-Discussion [✓] Demonstration [ ]

5. Body of abstract (300 word maximum):
During training, psychiatry residents are routinely involved in assessing patients who undergo involuntary detention for mental health treatment. Research shows that limited knowledge of statutory criteria for commitment impacts on residents’ decision making when detaining patients involuntarily. Junior psychiatry residents are less likely to take risks when discharging involuntary patients. To the authors' knowledge there is a lack of literature on teaching in this particular area of practice.

In an anonymous electronic survey, half of the psychiatry residents at the University of Texas Health Sciences Center in Houston reported that they had not received any training on statutory criteria for civil commitment; more than half felt their training was inadequate; and a majority agreed they would benefit from formal training. ACGME recommends that residents be exposed to the legal aspects of psychiatric practice including civil commitment. According to the ACGME outcome project, residency programs should have a curriculum with dependable measures to assess resident performance. A competency based curriculum was developed to train residents on civil commitment procedures. The focus was to implement measurable training experiences involving workplace based assessments; whilst encompassing the competency domain of professionalism and to clarify level of expertise.

Training will be delivered via an electronic learning module including historical aspects, ethical issues, landmark cases, statutory criteria and timelines, the mental health code, simulated case based discussion, writing skills exercises, and a patient experience video. Residents will gain field experience by attending mental health hearings in court. An Assessment of Clinical Expertise (ACE) in performing an assessment for involuntary detention and giving evidence in a Mental Health Hearing will be conducted alongside audits of legal and clinical documentation.

The authors will report their experience of this pilot competency based curriculum. Pretest and post-test questionnaires will be designed to measure residents’ knowledge.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
1a. Name(s) of presenter(s):
Shawn P.E. Nishi, MD

1b. School affiliation(s):
University of Texas Medical Branch

2. Contact email address:
spnishi@utmb.edu

3. Title of Submission:
Development of an Ultrasound-Guided Procedures Simulation Education Course at the University of Texas Medical Branch

4. Indicate type of submission (choose one):
Poster 
Poster or Poster-Discussion ✔
Demonstration 

5. Body of abstract (300 word maximum):

Medical education has long relied on the Halstedian apprenticeship model ("see one, do one, teach one") to teach procedure skills. However, this learning model was designed to teach simple, low-stakes procedures, does not focus on patient or learner safety or comfort, focuses purely on technical requirements of a procedure, and relies opportunities to participate which are limited by experienced mentors, reduced work hours, and referral to proceduralists. Adding ultrasound to guide invasive procedures is now standard of care to reduce complications, however, <15% of US housestaff surveyed used this technology. The major reasons cited were availability of equipment and lack of knowledge for proper use.

To address these problems, we assessed our rates of procedure related complications, acquired and deployed ultrasounds across the hospital, and created an innovative ultrasound guided invasive procedure course to train house staff at the University of Texas Medical Branch using multiple modalities of learning and feedback utilizing:
1. Pre-course reading, test, survey
2. Didactics
3. Pre-course videos
4. Simulation
5. Post-course test and survey

Since the initiation of the Ultrasound-Guided Procedures Simulation Education Course, we have received positive feedback from participating instructors, learners, nursing staff and faculty. Medical knowledge of procedures assessed by pre- and post- course testing showed >20% improvement. Post-course surveys indicate increased confidence and learner perception that they will be successful in performing procedures in patient care settings post course. 100% of participants would recommend or require this course to be completed prior to clinical patient encounters. Additionally, rates of central line associate blood stream infections (CLABSIs) decreased from 7.25 to < 2 per 1000 catheter line days and iatrogenic pneumothoraces decreased from 0.95 per 1000 cases to 0 cases due to placement of central venous access since the course began in November 2011.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Title: **Provision of Feedback on Medical Student Clinical Reasoning Skills with Innovative Tool**

Jean A. Petershack, MD¹, Soo Y. Kim, MD², Gina S. Lowell, MD, MPH³ and Sharon E. Sholiton, MD³. ¹Pediatrics, University of Texas Health Science Center at San Antonio, San Antonio, Tx, United States; ²Pediatrics, Loma Linda University, Loma Linda, California, United States and ³Pediatrics, Rush University, Chicago, Illinois, United States.

**Background:** Computer-assisted Learning in Pediatrics Program (CLIPP) online simulated patient cases are used by most medical students across the United States. CLIPP cases model aspects of clinical decision-making used in patient care, and the CLIPP Case Analysis Tool (CAT) deconstructs this into a 4-step structured clinical reasoning process: identifying problem cues, formulating a problem statement, prioritizing a differential diagnosis, and generating an evaluation/treatment plan. Use of the CAT by students, alongside the CLIPP cases, provides practice and may facilitate meaningful feedback to students regarding their skills. The medical education literature supports the need for structured feedback in skill development.

**Objective:** Assess the ability of the CLIPP CAT to provide meaningful feedback and promote development of M3 students’ clinical reasoning skills.

**Design/Methods:** Approximately 500 M3 students in AY 2013-14 at three sites (Rush Medical College, Loma Linda University, UTHSCSA) are utilizing the CAT to analyze 4 CLIPP cases during their pediatric rotation. Feedback is provided for each case in a large group setting focusing on the key steps used in the CAT clinical reasoning process. Students assess their own work on the CAT, which clerkship faculty later review and return with feedback. Students completed anonymous surveys to provide input about the educational value of this process. IRB approval was obtained.

**Results:** Data from 147 student surveys has been analyzed. Questions addressed the ability of the CAT to facilitate meaningful feedback regarding each step in the reasoning process, and responses yielded mean scores of 3.90-4.14/5 on a 5 point Likert scale. Mean scores on two questions regarding perceived development of clinical reasoning skills were as follows: “Overall, the use of this tool improved my ability to reason through a clinical case” 3.97/5 points, and “I am able to apply the skills acquired using the CLIPP CAT to the assessment and care of pediatric patients in the clinical setting” 3.93/5.

**Conclusions:** Preliminary data demonstrate that the CLIPP CAT can facilitate meaningful feedback to students about their clinical reasoning skills, and may enhance skill acquisition that can be transferred into the clinical setting. Next steps include qualitative analysis of data from focus groups and free text comments regarding the educational value and best practices involved in integrating the CLIPP CAT into clerkship education.
Diane Rhodes, BBA, RRT, AE-C
Diego J. Maselli, MD
Jay I. Peters, MD
Donna Gardner MSHP, RRT, FAARC

1. Department of Respiratory Care, School of Health Care Professions, University of Texas Health Science Center at San Antonio, San Antonio, TX.
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Contact: Diego J. Maselli: masellicacer@uthscsa.edu

Asthma Educational Awareness Program of North East Independent School District / University of Texas Health Science Center-San Antonio

DESCRIPTIVE/INNOVATIVE POSTER/POSTER-DISCUSSION

ABSTRACT (296 words)

Educational Objectives of the Project

Statistics have shown that many students with asthma miss a significant number of school hours and/or days resulting in loss of instructional time and state revenue. The Asthma Awareness Education Program was developed to target the asthmatic students (9.2%, 5,651) of the North East Independent School District /Bexar County area. The program’s community outreach Asthma Blow Out (ABO) model provides asthma management education to all the district’s students, staff, and stakeholders, reducing many of the health care barriers that exist in the community.

Project Description

The ABO occurs over two hours. Parents receive asthma education from physician partners in four 20-minute sessions providing an opportunity for parents to communicate and evaluate the need for an asthma specialist. Secondary students receive two hours of instruction on asthma management. Activities include the key-points of recorded physician sessions along with age-appropriate team-building physical activities. Elementary students receive asthma education utilizing ‘Radical Randy’ (UTHSC –Galveston Medical School/South Texas Asthma Coalition product) as a framework. Innovative hands-on activities and props are used to engage the audience. Students rotate through six 10-minute sessions and participate in asthma education activities provided by campus nurses and PE teachers.

Outcomes

The program showed reductions in inhaler use after the environmental interventions were performed. Awareness of the disease increased from 9.2% (5,651) to 11.93% (8,061) students with asthma. Yearly attendance averages increased from 95.3% to 96.1% since the program’s inception. Every PE teacher and campus nurse of the district actively participated in the sessions, thereby raising the awareness of asthma. 95% of attendees would recommend the ABO model to a friend.

Conclusions

The Asthma Awareness Education Program (AAEP) was effective in educating the community and increasing the awareness of the disease. It had a significant impact on inhaler use and attendance.
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| 1a. | Name(s) of presenter(s):  
Michelle Sierpina, PhD, Barbara Thompson, MD, Brittney Miles, MS4, Dimple Patel, MS4,  
Phillip Pippin, MS4 |
| 1b. | School affiliation(s):  
UTMB Health |
| 2. | Contact email address:  
msierpin@utmb.edu |
| 3. | Title of Submission:  
Innovations in Geriatric Education for Medical Students—A New Look at Healthy Aging in a Family Medicine Elective |
| 4. | Indicate type of submission (choose one):  
[ ] Poster  
[ ] Poster or Poster-Discussion  
[ ] Demonstration |
| 5. | Body of abstract (300 word maximum):  
Educational Objectives: Fourth year medical students participate in a one-month clerkship to learn the spectrum of geriatric care in Family Medicine clinic, hospital, nursing home, and hospice settings. This new addition to their rotation is meant to bring them into contact with healthy community-dwelling seniors and expose them to the concept of dynamic longevity.  
Program Description:  
What happens when vibrant, energetic medical students hop into the water aerobics pool, stretch in a yoga class, or sample tai chi with vigorous aging individuals? The Department of Family Medicine at UTMB Health recently expanded their geriatric rotation and integration medicine rotation to incorporate interactions with members of the Osher Lifelong Learning Institute (OLLI) at UTMB Health. Now fourth year medical students visit classrooms, meet and interview OLLI members (55 to 95 years), and participate alongside them in experiences as diverse as ballroom dance, qigong, and Pilates to courses including marine biology, glass/s art, ethics, The Odyssey, and, the students’ favorite course, lifestory writing.  
In addition to their standard duties, UTMB medical students now get an intimate look at lifestyle choices that contribute to healthy aging. They review current literature on healthy aging with emphasis on the interventions they experience, including recently published studies on the lifestory process at OLLI at UTMB Health. Students work with the Chair of Family Medicine and OLLI’s founding director to tailor learning experiences to suit individual interests.  
Outcomes: Students have reported surprise at the capabilities of community dwelling older adults. They leave the rotation with expanded perspectives on this population ...and some sore muscles after trying to keep pace with their new OLLI friends.  
Conclusions: At the conclusion of the rotation, participants universally laud the enriched perspective on healthy aging. Exemplary quotes from student feedback will be provided to substantiate the transformative effect of this experience. |

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
1a. Name(s) of presenter(s):
Beatriz Tapia MD MPH, Noe Garza DDS MPH, Leonel Vela MD MPH, Claudia S. Miller MD MS

1b. School affiliation(s):
Regional Academic Health Center - Harlingen, The University of Texas Health Science Center at San Antonio

2. Contact email address:
tapiab@uthscsa.edu

3. Title of Submission:
STEER: An innovative program reuniting environmental medicine and public health

4. Indicate type of submission (choose one):

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5. Body of abstract (300 word maximum):

Background
The South Texas Environmental Education and Research (STEER) program was founded in 1996 by the UT Health Science Center SA under Family and Community Medicine in Laredo, Texas. In 2004, due to the programs’ uniqueness and success a sister program was instituted at the Regional Academic Health Center (RAHC) on the Harlingen Campus. Its overarching goal is teaching tomorrow’s medical and public health professionals, so as to reunite medicine with public health.

Introduction
The Border was chosen for this in-vivo elective because the area is medically underserved and faces panoply of environmental health challenges. If we are to contain health care costs, future physicians must have a fundamental understanding of environmental exposures, public health, and primary prevention. Currently, most medical schools provide little if any training in environmental health.

Methodology
Both in the classroom and in the field, STEER’s emphasis is on experiential, hands-on learning, segments in this month-long elective focus on health concerns such as: (1) indoor and outdoor air quality, (2) endemic diseases (tuberculosis, etc), (4) exposures to heavy metals and pesticides, (5) the practice of herbal medicine and “curanderismo”, (6) developing world living conditions in “colonias”, (7) Environmental exposure history-taking, and (8) other relevant topics like access to medical care, cultural differences, and the health practices of neighboring Mexico.

Outcomes
Over the past 17 years, 700 hundred full-time students and thousands of part-time health professions students have benefited from this unique elective. In 2007, STEER paved the way for creation of the toward their 4-year MD/MPH Program. Both The UT School of Medicine in San Antonio and The UT School of Public Health grant credit for STEER. Currently, with over 100 participants. A majority take STEER for their MPH practicum experience.

Conclusion
The program can serve as a course model for other Schools of Medicine that wish to incorporate public health into their medical school curriculum.
# Professional Identity Formation and Social Media Beliefs and Behaviors

**Introduction:**
Medical educators have recognized a need to better understand how professional identity is formed over time, how personal identity is changed as one proceeds through medical school, and whether either of these impact social media use.

**Methods:**
Utilizing an observational cohort design, a survey piloted at another Texas medical school was delivered online to medical students during the 2012-2013 academic year. Subsequently, college freshmen accepted into the UT-PACT program completed the same survey. The survey uses a series of graphic representations of the respondent’s connection with different groups to gauge their personal and professional identities followed by a series of questions about social media use and opinions about that use.

**Results:**
Each cohorts with more exposure to medical school indicated a stronger relationship with US medical students (r=0.12, p=0.002) and physicians (r=0.29, p<0.0001). Conversely, there was an inverse relationship with race/ethnic group (r=-0.1, p=0.008) and on-line network (r=-0.16, p<0.0001). There was no significant relationship with other variables. Affiliation with the medical school appears to peak early in medical school then declines. Given the relationship between exposure to medical school and physicians, this variable could represent professional identity formation (PIF). This potential measure of PIF was analyzed in the context of social media beliefs and behaviors. Higher PIF was associated with not having a personal social media page, having untagged and/or removing material, separating personal and professional profile pages, and posting pictures they would not want a patient to view. Of note, higher PIF was not associated with concern about images viewed by residency program directors.

**Conclusion/Discussion:**
The graphic representations on the survey instrument appear to be a valid measure of Professional identity formation. This instrument allows us to gain insight into student beliefs and behaviors regarding social media in the context of their professional identity formation.
GLIMPSE demonstration and poster-discussion proposal  
November 14, 2013

Name(s) of presenter(s) and school affiliation(s):  
**UT Dallas:** Dr. Marjorie Zielke, Gary Hardee, Ryan Zeigler  
**UT Arlington:** Dr. Mary E. Mancini  
**Baylor Scott & White Health:** Dr. Susan Houston, Louann Cole, Dr. Yan Xiao  
Contact email address: margez@utdallas.edu  
Title of Submission: Educating Physicians and Nurses on Soft Communication Skills Using the GLIMPSE Game – Early Findings  
Type of Submission: Poster and Demonstration Discussion

Body of abstract (300-word maximum)

**Educational Objectives of the Project:** Research shows that ineffective inter-professional communication is a leading contributor to preventable patient harm. To this end, we developed GLIMPSE -- a Game to Learn Important Communications Methods for Patient Safety Enhancement. Sponsored by the Agency for Healthcare Research and Quality (AHRQ), the web-based game presents a robust educational curriculum as an interactive “glimpse” into communication barriers that occur between physicians and nurses. Poster, demonstration and discussion objectives include: 1. Delineate methodology for determining the GLIMPSE game physician/nurse communications curriculum. 2. Description of game-design techniques to represent the curriculum. 3. Discussion of implementation methodologies and challenges. 4. Outcomes of early game implementation. 5. Discuss the use of multi-player serious games as an innovative educational technique.

**Project/Program Description:** GLIMPSE players participate in perspective sharing from the nurse, physician, and patient viewpoint. Physicians and nurses play game episodes, and earn interaction points (iPoints), badges, and other rewards based on their individual and team gameplay. The challenge is to use Team-Based Communication (TBC) and Situation, Background, Assessment and Recommendation (SBAR) to communicate effectively with care-team members. Players receive immediate feedback during the game. We will discuss the design of GLIMPSE and how we architected a game out of a prescribed communications curriculum along the parameters of the educational objections outlined above.

**Outcomes (if available) or what was learned** Participation rates, early analysis of respondent satisfaction from gameplay, knowledge gains and results from a variety of incentive techniques will be presented.

**Conclusions/future plans:** We will discuss observations on game implementation so far and outline various ways we are using the gaming platform and content development to expand on the communications theme of GLIMPSE. We will also share any enhancements suggested by the physician-nurse participants to date on enhancing the game.
Incorporating Active Learning into a Large Nursing Pharmacology Course

Educational Objectives for the Project. Faculty in the School of Nursing (SON) at University of Texas Medical Branch (UTMB) changed the curriculum to add a stand-alone pharmacology course in response to increased pharmacology content in the National Council Licensure Examination (NCLEX) and concerns about NCLEX pass rates. With class sizes over 100 students, incorporating active learning is challenging. The purpose of this curriculum project was to incorporate active learning for a large third-year pharmacology course. Institutional review board (IRB) approved the project.

Project Description. Methods to incorporate active learning included interactive teaching strategies and a creative learning project for students. The interactive teaching strategies included fill-in-the-blank PowerPoint slides, audience response system (ARS), and fill-in-the-drug comparison charts. The creative project involved groups of four to six students producing a cartoon, song, or other imaginative expression about a drug class. The projects were presented throughout the course when the topic was covered, and made available to all students for study.

Project Outcomes. Nursing students in this program take a national norm-referenced practice exam in pharmacology from Assessment Technologies Institution (ATI) during their last semester. Scores on this exam increased from 66.9% (n=187) for students prior to implementing the pharmacology course, to 74.3% (n=196). The average evaluation by students of the course
was 4.67 out of 5 for the active learning cohorts, and decreased to 4.50 when the course was later taught in a traditional lecture format.

**Conclusion.** Students demonstrated enthusiasm and engagement to both the creative learning project and active learning strategies. Objective scores on a national exam in pharmacology increased for the active learning cohorts, and students’ subjective evaluation of the pharmacology course decreased when the class changed to traditional lecture format.
Incorporating Active Learning into a Large Nursing Pharmacology Course

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An Interdisciplinary Summer School in Medical Education, Medical Ethics, Creativity and Management

Mitra Amini MD1, Mohammadreza Dehghani MD2, Javad Kojuri MD3, Gholamreza Safaei Ardakani MD4, Ali Mahbudi PHD5, Leila Bazrafkan PHD6, Mohammadmehdi Sagheb MD7, Zahra Karimian PHD8, Mahbobeh Saber MD9, Ali Seifi MD10

1Associate Professor at Education Development and quality improvement in clinical education research center, Shiraz University of medical sciences, Shiraz Iran.
2Assistant Professor at education development and quality improvement in clinical education research center, Shiraz University of medical sciences, Shiraz Iran.
3Full Professor at education development and quality improvement in clinical education research center, Shiraz University of medical sciences, Shiraz Iran.
4General practitioner at education development and quality improvement in clinical education research center, Shiraz University of medical sciences, Shiraz Iran.
5Faculty member of English Department, at Shiraz University of medical sciences, Shiraz Iran.
6Assistant professor of Shiraz university of medical sciences, Shiraz, Iran.
7Faculty member of internal medical group, at Shiraz University of medical sciences, Shiraz Iran.
8PHD student, at Shiraz University, Shiraz Iran.
9General Practitioner, at Shiraz University of medical sciences, Shiraz Iran.
10Assistant Professor, Department of Neurosurgery, University of Texas Health Science Center at San Antonio.

Education Development and quality improvement in clinical education Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.
The most important mission of a university is to train students for their job roles. Owing to the urgent need for general education of students, and curriculum overload during ordinary semesters, particularly at medical schools, it is necessary to plan some intensive courses to present the required topics to students. In this connection, the purpose of the present study was to evaluate the success rate of Shiraz first interdisciplinary summer school in achieving its educational objectives.

The topics were divided into four general categories: medical education, medical ethics, management, and creativity with some subcategories for each topic. Totally, there were 83 specific topics discussed. 50 hours were devoted to the medical education topics, 26 hours to ethics, 24 hours to management and 10 hours to creativity. Different teaching methods such as lecturing, small group, problem-based learning were employed. A 360 degree assessment (multisource feedback) was used for assessing the students’ viewpoints, lecturers, and EDC (Education Development Center) faculty members. The rate of achieving the objectives was evaluated through a final test, submission of a project, supervision of group activities and the students’ self-assessment.

A total of 63 students from 13 universities in Iran participated in this program. Regarding the education sufficiency, the students ranked medical education first, followed by creativity, management and medical ethics, respectively. The results of 360-degree assessment showed that more than 90% of the participants evaluated the program as very good or excellent. In addition, in an overall evaluation of the program in which the participants rated the program from zero to twenty, the mean was found to be 18.97 with a standard deviation of 1.18.

Due to the magnitude of new developments in the world and the efficacy of this program, similar programs are recommended. It is now necessary that (EDC’s) all over the country employ experienced manpower and required resources.
Reviewing Grasha Teaching Methods among Faculty Members of Shiraz Medical School

Mitra Amini, MD¹, Sahar Samani, MD², Farhad Lotfi, MD³, Ali Seifi, MD, FACP⁴

¹Education Development and quality improvement in clinical research Center, Shiraz University of Medical Sciences, Shiraz, Iran
²General practitioner Shiraz University of Medical Sciences, Shiraz, Iran
³Faculty of Health Management and information Sciences, Tehran university of Medical Sciences, Tehran, Iran
⁴Assistant Professor, Department of Neurosurgery, University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA.

Abstract

Introduction: Teaching and training are the basic responsibly of a faculty member. One of the fundamental problems of education in the universities is not having a criterion to identify the effective teaching styles. The aim of this study was to determine Grasha teaching method among the faculty Members in Shiraz Medical School.

Methods: This descriptive, cross-sectional study was done on 100 faculty members who were selected by census sampling method. Data collection method was Grasha questionnaire, which contains 40 questions in 5 sections. SPSS 18 analyzed data.

Results: All questionnaires were completed. The age range was from 32 to 65 and the mean age was 46. 57% were male. There were 27 PhD, 35 specialists and 38 subspecialists. The highest average score belonged to “Expert” method (2/66±0/55) and the lowest to “Personal” (2± 0/76). 96% of the academic staffs were inclined to “Expert“ method and %97, %83, %78, %80 to “Formal”, “Personal”, “Delegator“ and “Facilitating“ methods, respectively. There was no significant difference between male and female, but in “Expert” method, the average of females was superior. %77 was under 50 years and %23 over 50.
There was no significant difference between elder and younger academic members. No significant difference was found in terms of university degree.

**Conclusion**: This study suggested academic members are inclined to use "Expert" and Delegator methods. Therefore, it is necessary for the academic members to choose a method, which creates intellectual excitement among the students through the clarity of teaching content and understanding among individuals that increase the efficiency of their methods.
The Effect of team-based learning on study skill course of Nutrition Students of Shiraz University of Medical Sciences

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Shekofeh Jafari, MD  
General Practitioner, Shiraz University of Medical Sciences, Shiraz, Iran

Farhad Lotfi, MD  
Phd student Tehran University of medical sciences, Tehran, Iran

Leila Bazrafkan, MD, Assistant professor of education development center and quality improvement in clinical research center, Shiraz University of medical sciences, Shiraz, Iran

Zahra Karimian, MD  
Phd Student of education development center and quality improvement in clinical research center, Shiraz University of medical sciences, Shiraz, Iran

Ali Seifi, MD, FACP, Assistant Professor of Neurosurgery, University of Texas Health Science center at San Antonio.

**Background:** Team-based learning is a recent education strategy, which is taken in to consideration by medical education associations. In populated centers and high educational levels, this method lets a teacher manage the class in the form of small groups. Different studies have classified the advantages of this method as increasing the involvement of students in class, becoming able to communicate with classmates, increasing the students’ scores, and needing less instructors. The aim of this study is to determine the effect of team-based learning on study skills course of Nutrition students of Shiraz University of Medical Sciences.

**Methods:** The sample of the study was 36 first year nutrition students. In the preparation stage, students studied the assigned lessons before the class, in the second stage first individually and
then in groups filled in the questionnaire about the discussed issues in the class. The third stage, which included presenting short topics by the team leader and having group discussions, only was performed in some sessions. Finally the satisfaction evaluation form which validity and reliability was confirmed was distributed among the students.

**Results:** In both groups of the study a meaningful difference was observed in answering the questions individually and in groups and the average of score of the students after the group work was higher (P<0.05). The students were more pleased using this method.

**Conclusions:** It seems that team-based learning methodology can be used as a more effective method for approaching the student centered educational goals among medical science students.

**Keywords:** team-based learning, Medical science student
Poster Submission for 10th Annual Innovations in Health Science Education Conference

Presenters: All presenters are from University of Texas Medical Branch
Era Buck, PhD
Susan M Gerik, MD
L. Lee Grumbles, MD
Julie McKee, MD,
A. Catalina Triana, MD
Cara Geary, MD, PhD

Contact email address: Era Buck, erbuck@utmb.edu

Title of Submission
Type of Submission: Poster

Educational Objectives
Learners in the Physician Healer Track will:
- Recognize paradigms of education and practice including
  Technocratic/Humanistic/Holistic
  Practice Self-reflection and stress management
  Evaluate body/mind/spirit relationship
  Evaluate personal role in healing encounters/healthcare environment
  Create career-life balance map
  Demonstrate therapeutic communication skills

Program Description
The Physician Healer Track is designed to mentor students to develop an identity as healers. The training focuses on self-awareness, self-reflection, interpersonal communication, self-care and work-life balance. Being a source of healing for the suffering of another is both a responsibility and a privilege. In addition to our technical knowledge and skills, being a healer requires training in equanimity, wisdom and compassion. The program comprises 4 components: small group sessions, preceptorships, electives and scholarly projects. The small group sessions are monthly meetings for dinner and discussion across the 4 years of medical school. The first two years are topics unique to the track and groups are kept intact for the Practice of Medicine courses in years 3 and 4 which follow a similar format. Clinical and non-clinical preceptorships between the first and second year of medical school provide instruction and practice in courses for self-development, healing relationships and an opportunity for early clinical experience. During years 3 and 4, students take at least two approved electives and, during year 4, complete a final project for the track.

Outcomes. The curriculum committee approved the program as an official concentration track for the medical school. The first cohort of students was enrolled in August 2013, quickly filling to capacity. Students have started a physician healer student society related to the track.
Future Plans Components of the track will be considered for inclusion in the TIME curriculum at UTMB. A faculty development program to expand and strengthen the cadre of skilled mentors is under development. Program evaluation is a continuous process.
10th Annual Innovations in Health Science Education Conference – Poster proposal

Name of presenters: Bullen Clarke, Alexander; Lopez Vasquez, Manuel; Hanley, James F III

School affiliation: UTHSCSA-RAHC

Contact email address: bullenclarke@uthscsa.edu

Title of Submission: Can we teach Internal Medicine Residents to Recognize and Reduce Diagnostic errors using structured De-biasing Methods and Mindfulness?

Type of Submission: Poster

Body of abstract:

Educational Objective: Diagnostic errors are a challenge on the frontier of patient safety. These errors occur commonly and can have devastating consequence with as many as 40 000 to 80 000 deaths a year. The principle cause of diagnostic errors is cognitive failure, often because of biases. Mindfulness and using a de-biasing strategy are effective methods to reduce these errors. It is essential to teach residents these methods to improve both patient care and the resident’s critical thinking.

Project Description: In a pilot study we found that using facilitated check-in rounds where the night float resident and the Preceptor reflecting on overnight admission; could identify and categorize diagnostic errors in the admission process. We are expanding this process to include the following steps: 1. All Residents will receive didactics on diagnostic errors, focusing on their classification and de-biasing strategies. 2. On the night float rotation, after each admission, the Resident will be asked to complete a survey that focuses on specific de-biasing tools, forcing the Resident to incorporate these techniques in a mindful manner. 3. The Resident will be asked to categorize all potential diagnostic errors. 4. A focus of the facilitated check-in rounds, will be on mindfulness, de-biasing process and potential diagnostic errors. 5. To assess the Resident diagnostic abilities, we will administer the diagnostic thinking inventory at the beginning and at the end of the rotation.

Outcomes: In our pilot study, we found that 46% of the Emergency Room admissions had a potential diagnostic error and that the ED admission diagnosis agreed with the discharge diagnosis 56% of the time.

Conclusions: Diagnostic errors and misdiagnosis are common in our institution. With facilitated reflections, Residents can identify and categorize these errors. We believe that with a structured approach residents can significantly increase mindfulness and reduce cognitive failures.
The Prematriculation Reinforcement and Enrichment Program (PREP) is an intensive six-week summer program held on the campus of UTMB. It provides a maximum of sixty students who have been accepted into medical school at UTMB with an academic, enrichment educational experience that enhances their academic preparedness for medical school. Accepted students participate in four well-designed, condensed first year medical school courses: Anatomy and Radiology, Molecules Cells and Tissues, Pathobiology, and Neurosciences and Behavioral Sciences. Students are introduced to lectures, the gross anatomy lab and problem-based learning. They become familiarized with medical school faculty and are introduced to the mental and physical discipline required to succeed in medical school. They receive a realistic exposure of the expectations of medical school, are presented with the opportunity to network with other students, and are able to adjust to the healthcare environment and the surrounding community. Many of PREP students participated in UTMB’s undergraduate pipeline programs, such as the Early Medical School Acceptance Program (EMSAP) and the state supported Joint Admissions Medical Program (JAMP). The majority of the PREP students are financially disadvantaged.

In the past nineteen years 1,140 students completed PREP. Student evaluations indicate that they benefitted greatly from the exposure that PREP provided. Additional comments suggest that their introduction to the first year medical school courses allowed them to modify their study skills for each specific course. Many felt that being on the campus of UTMB and meeting future classmates removed the apprehension they would have felt entering medical school the first day. Many of the PREP students become class leaders. PREP prepares students academically for medical school and provides them the opportunity to adjust to the medical school environment. The combination of the undergraduate pipeline programs and PREP is an innovative method of preparing students for success in medical school.
Creating the Next Generation of Biomedical Scientists-The Voelcker Biomedical Research Academy

The vision of the Voelcker Biomedical Research Academy is to provide an immersive biomedical research education and college preparatory program for San Antonio high school students. This unique program allows an opportunity to create a pipeline for the next generation of biomedical scientists.

Objectives
1. To expand student outreach, and broaden representation and diversity across all San Antonio school districts.
2. To build a comprehensive, cutting edge curriculum tailored to San Antonio’s high school students.
3. To build an alumni program that fosters lasting relationships between scientists and Academy student scholars.

Description
In year 1, students in the 7 week summer program are taught by faculty and graduate students from the Health Science Center incorporating a full spectrum of didactic and hands-on activities. Voelcker Scholars also receive training in scientific and technical writing in preparation of professional scientific posters. Leadership development according to the “7 Habits of Highly Effective Teens” program empowers students to become effective leaders for our future. In years 2 and 3 of the program, distinguished biomedical and clinical scientists serve as mentors to Voelcker Scholars providing a full research experience to promote excellence in scholarship and biomedical research training. In addition, students participate in a number of special research-oriented events throughout the academic year including a monthly scientific journal club, attendance at named lectureships and award ceremonies, and dinner with invited research scientists.

Outcomes
Now in its 5th year, there are 65 alumni attending colleges across the United States, and 42 active students in the program. Throughout the 3 year program, all 107 Voelcker Scholars have demonstrated an exponential increase in understanding of scientific concepts and language, given oral and poster presentations to peers, lab groups, faculty, and some have attend national scientific meetings and been included in manuscripts for their contribution to the research.
Incorporating Peer-Mentors to Enhance a Nursing Specialty Certification Course

Introduction
Nursing specialty certification is a recognized metric of hospital quality and validation of safe patient care delivery. However, specialty certification is not a requirement to practice. Therefore, direct care nurses who seek certification are most often self-motivated and use some form of independent study to prepare for the certification exam. The purpose of this project was to complement traditional didactic teaching methods with a mentoring strategy to improve the success rate for staff nurses in passing specialty certification exam.

Methods
A team developed a 10-week certification course which provided nurses with 2-hours of lecture and 1-hour practice exam each session. Starting with the first week of class, these nurses were paired with a nurse mentor. These certified nursing mentors introduced themselves via email, phone or in-person and contacted each mentee weekly using a semi-structured template. Mentoring sessions focused on determining how the mentee was progressing and what resources they needed for success. Mentors submitted weekly reports to the course moderators.

Results
There were 29 nurses who were paired with 7 mentors. There were 158 nurse-mentor contacts; the primary method of mentoring contact was email 149. Every nurse who enrolled in the certification course completed the course. The number of nurses who have obtained specialty certification is steadily increasing.

Conclusions/Discussion
Aligning students with mentors has the potential to increase the number of nurses who complete a preparation course as well as the number who sit for and pass a specialty certification exam. The certification preparation course ended in September, 2013 and nurses have 90 days to sit for the exam, final results are pending. This project potentially has important implications for professional growth and quality patient outcomes.

*Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Despite exponential increases in the quantity of available information, approaches to teach fundamentals of biomedical science to first year graduate students have changed little over the past 50 years. It is unrealistic to expect students to learn everything that is known about biomedical science in a one-semester course. Consequently, we have designed a novel approach for a one-semester course that emphasizes both independent and team-based learning of selected core concepts designed to promote critical thinking skills. The faculty of the basic science programs were polled to obtain core concepts deemed to be critical for students in biomedical sciences. Selected core concepts were grouped into 16 collections to be presented to students by faculty teams (5-8 faculty, with one team leader) each week. Basic concepts (molecular biology, biochemistry, etc.) were presented in the beginning weeks, with more integrative concepts progressing toward the end of the semester. Core concepts of each week were presented to students with a three-component design: 1) Independent Learning, 2) Didactic Lectures, 3) Team-Based Learning. Within the basic three-component framework, each week’s faculty team had flexibility to design their week’s activities in a manner that best suited the content and skills of the faculty team. A course director was chosen to foster integration between faculty teams and provide a consistent point of contact for students. Examinations, in class, were designed to promote continued learning, as notes, books and computers with internet access were permitted. Students provided anonymous, online peer review as well as comments and critiques of the course each week. After completion, a committee of faculty and students review the course and provide suggestions for improvement. This new teaching approach is viewed by both faculty and students as a marked improvement over the previous, solely didactic-based course.
1a. Name(s) of presenter(s):
Leonard J. Cleary, Ph.D. and David W. Marshak, Ph.D.

1b. School affiliation(s):
Univ. Texas Health Science Center Houston

2. Contact email address:
Len.Cleary@uth.tmc.edu

3. Title of Submission:
Outcomes of a Rotational Dissection System in Gross Anatomy

4. Indicate type of submission (choose one):

| Poster ☒ | Poster or Poster-Discussion | Demonstration |

5. Body of abstract (300 word maximum):

**Introduction:** At UT-Houston, we use a rotational dissection system to improve coordination between the Gross Anatomy and Introduction to Clinical Medicine (ICM) courses. Therefore, the first-year medical students have the opportunity to learn physical examination skills focused on the region they are dissecting.

**Methods:** Six students are assigned to each cadaver and divided into two teams. For each laboratory, one team is assigned to dissect and the other to attend ICM or study independently. For the next laboratory, the assignments are reversed, and the team that dissected spends 30 minutes teaching the other team. The students are given three traditional practical examinations with questions drawn equally from each laboratory and three course evaluations.

**Results:** In 2012, there were no significant differences in overall performance between the two teams. To determine whether the students did better at identifying structures they had dissected than those they had not, we used a mixed effect model with repeated measures, with each student serving as his or her own control. Results from all three exams were combined and expressed as % correct ± SD. For dissected structures, the mean was 80.0 ± 13.0, and for undissected structures, it was 78.3 ± 14. The difference was small, but statistically significant (p = 0.0007).

**Conclusions:** This result validated the concerns expressed by some students, but we do not believe that a change in the system is justified. Students are generally positive about the opportunity to learn clinical skills in the first semester, and 91-96% of the students agreed that learning Gross Anatomy helped them understand the physical exam exercises in ICM.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Jadranko Corak, MD, FACP, Christopher Stearns, MD, Jeffrey Eaton, MD, Celina Mankey, MD

Internal Medicine Program - UT Southwestern Residency Programs at Seton Family Hospitals

Contact: castearns@seton.org

“Simulation Design & Development: Leadership in a Crisis, Code Pager Response Simulation”

Type of Submission: Poster

Educational Objectives: Enable residents to diagnose and manage Ventricular Fibrillation while demonstrating effective communication with other members of health care team in a simulation laboratory.

Program description: Resident is serving as cross cover resident for the medicine service. Resident is called to the bedside via a code pager. The resident will enter the room only knowing that a code has been called, knowing nothing about the patient. The patient will be in the process of being coded. The patient’s nurse will give a brief SBAR communication and let the resident know that basic life support (BLS) measures were started, including CPR, with the crash cart in route to the room. BLS measures will not be performed correctly initially; the resident should note the problems and correct them. The resident should lead the code team, perform advanced cardiac life support (ACLS) using the appropriate algorithm, and focus on patient care and communication (as opposed to data gathering).

Outcomes and what was learned: Resident’s performance was evaluated by a checklist for management of ventricular fibrillation completed by attending and resident. Data collected shows all residents recognized ventricular fibrillation as the arrhythmia. Assessment of how to treat ventricular fibrillation was split into recognizing correct BLS and ACLS skills. Most of the Interns (15) and half of Residents (10) completed simulation. Most of the Interns missed correcting at least one of the BLS points: disconnected oxygen supply, lack of board, or incorrect compression ratio. All participants praised simulation as a valuable teaching tool for real code simulation.

Conclusion/Future plans: Simulation laboratory was a safe venue to practice a stressful situation via a crisis situation. The simulation experience was highly valued by residents for educational and stress-simulating content. We plan to rotate all incoming residents through this simulation exercise during their training to help develop leadership and communication during a code situation.
Presenter: Suzanne Davis, Kristin Yeung, Christine Andre, M.D.
School: UT-HSC San Antonio
Contact: DavisSJ@livemail.uthscsa.edu
Title: Informal “Career Social Hours” Facilitate Informed Specialty Choices for Students

Type of submission: Poster or Poster-Discussion

Abstract:

Objective: Between entering medical school and completing residency applications, each medical student must make a career-altering commitment to a medical specialty. Students often arrive at this decision during 3rd year clinical clerkship rotations by gaining first-hand experience. However, clerkships also place students under stress to perform well academically, and this may hinder the ability to ask the frank questions of residents and faculty that might best guide specialty choices. Veritas, the mentoring and career-advising program at UTHSCSA, created a unique opportunity for students to ask specialty-related questions of faculty, residents and fourth year students in a relaxed, informal setting. The objectives are to enhance the sharing of specialty-focused information in an effort to more effectively guide student career choices.

Description: Veritas Career Social Hours was created as a series highlighting a different medical specialty each month. All 1st, 2nd, and 3rd year medical students are invited to participate. An average of 30 students, 1-3 faculty and 5 residents have participated in each event, held at local restaurants and where casual conversation takes place over appetizers in an informal, ungraded setting. Students are also provided a list of “conversation starters” to help focus their questions and enhance communication.

Results: Verbal feedback was overwhelmingly positive. Formal evaluation was conducted with post-surveys. 82% of students surveyed obtained useful information to help narrow down their specialty choice and 70% felt the informal atmosphere made it easier to obtain specialty-specific information that they would not necessarily receive in a more formal setting. Students rated time speaking with faculty as most useful compared with residents and 4th year students.

Conclusions: While new, Veritas Career Social Hours have been well received with great utility for students. Veritas plans to continue these monthly events in an effort to facilitate more personalized, effective guidance on choosing a medical specialty.
Novel pathways and opportunities in bioinformatics education

Poster or poster-discussion

While the demand for bioinformatics education has grown by leaps and bounds, most curricula have been unable to cope with this demand because of the need for cross-disciplinary training in computer science, statistics, modeling, and a range of specializations of biology. To overcome these educational ‘stovepipes’ the Center for Systems and Synthetic Biology, the Center for Computational Biology and Bioinformatics, and the Genome Sequence and Analysis Facility at the University of Texas at Austin have developed an innovative Certificate or Minor in Bioinformatics that draws upon all of these disciplines. This Certificate is especially useful in that it involves students in cutting edge bioinformatics research as part of the educational process, and encourages internship with industry as part of the degree plan. Projects both within and outside of the University can be initiated as part of a ‘job board’ which allows both researchers and students to ‘bid’ on different bioinformatics tasks with a range of complexities and durations. Examples of the types of bioinformatics jobs that are currently underway include: bioinformatics analyses of various clinically-relevant genome-wide associations, the human oral microbiome, and genotype-phenotype relationships in companion animals (soon to expand to the impact of companion animals on the human microbiome). In order to channel students into the Certificate or Minor (which are usually developed as Juniors and Seniors), there are a number of Freshman Research Initiative Streams that engage students in bioinformatic analysis, including Streams in companion diagnostics and drug discovery. The excitement generated in these Streams can then carry over into more formal training during upper division classes.
INTRODUCTION:
Reflective exercises are growing in popularity in medical curricula and offer a window to evaluate the “softer” competencies, such as those relevant to advocacy, which are difficult to assess using purely quantitative techniques. There are two main approaches to evaluating this data: qualitative analysis and analytical instructional rubrics that assess depth or quality of reflection.

Objectives:
1. Describe the themes expressed in written reflections using thematic coding
2. Evaluate the depth of reflection using the REFLECT rubric
3. Compare the nature and utility of the data resulting from the two evaluation techniques

METHODS:
Pediatric residents at UTHSCSA participated in an immersion experience in juvenile justice as part of our advocacy curriculum and completed a written reflection on the experience. Reflections were de-identified and reviewed by two independent reviewers using two different methodologies: thematic coding and an analytical instructional rubric (the REFLECT Rubric). Five reflections were reviewed initially to establish a coding scheme and to standardize the use of the REFLECT rubric between the two reviewers. Discrepancies were resolved by consensus. The data from these two approaches were compared. This study was certified as exempt by the UTHSCSA IRB.

RESULTS:
Nineteen residents completed the experience and written reflection. Analysis using thematic coding revealed several recurrent themes including: hope and rehabilitation, the role of family and social context, and recognition of biases and misconceptions. Analysis using REFLECT rubric revealed a range of reflective levels from habitual action to critical reflection with transformative learning. Distinguishing
between introspection and reflection was the most difficult for the reviewers, with recognition of the impact of their own biases on how they interpreted the reflections.

CONCLUSIONS:
Analysis of written reflections using thematic coding and the RELFECT rubric provided valuable but different information. These methodologies have potential benefits to curricula across the continuum of health science education.
### Template for Submissions

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<td><strong>1a.</strong></td>
<td><strong>Name(s) of presenter(s):</strong></td>
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<td>Wilson M. File, MD (only presenter), Patrick Leavey, MD and Martha Stegner, MD</td>
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<td><strong>1b.</strong></td>
<td><strong>School affiliation(s):</strong></td>
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<td>UT Southwestern</td>
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<td><strong>2.</strong></td>
<td><strong>Contact email address:</strong></td>
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<td></td>
<td><a href="mailto:wfile@ghs.org">wfile@ghs.org</a></td>
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<td><strong>3.</strong></td>
<td><strong>Title of Submission:</strong></td>
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<td>Breaking Bad News in Pediatrics: Intern Curriculum</td>
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<td><strong>Body of abstract (300 word maximum):</strong></td>
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<td><em>Introduction:</em> Effective communication is the foundation of a therapeutic relationship between the patient and his/her physician, and is clearly linked to improvement in: patient/physician satisfaction, adjustment to illness and medical decision making. The Accreditation Council for Graduate Medical Education listed communication skills as one of six core competencies for trainee physicians. However, few educational programs exist that are designed to teach communication skills in graduate medical training and data suggest 70% of pediatric residents perceive inadequate training in the delivery of bad news.</td>
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<td><em>Methods:</em> A pilot curriculum on breaking bad news was incorporated into the pediatric hematology/oncology inpatient rotation for pediatric interns. The program included didactic learning session followed by role play session with standardized actor patients. We measured pre-/post-curriculum reaction to communication training and 6 month follow-up through anonymous online questionnaire.</td>
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<td><em>Results:</em> Nine pediatric interns participated in the curriculum over a 4 month time period. Survey participation included pre-training (89%), post-training (100%) and 6 month follow-up (78%). All participants felt it was important for a pediatrician to be skilled in breaking bad news. Eight-nine percent had participated in learning session in breaking bad news as a medical student, however only 1 participant had training in pediatrics. Forty-four percent of participants did not feel confident in breaking bad news prior to the session. After the session, all participants rated improvement in their confidence and reported that they would use the skills taught in future patient encounters. The 6 month follow-up found that 85% reported using the communication skills taught during the session.</td>
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<td><em>Conclusions:</em> The curriculum addresses a gap in pediatric education with communication skills training and was well received by participants. Further research about the change in skills is needed to determine the sustained impact of such training. The curriculum could be used as a framework to assess competency in communication.</td>
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* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Name of Presenters: Meredith Greer, Sara Hartnett, Christine Andre M.D.

School affiliations: University of Texas Health Science Center at San Antonio

Contact email address: Hartnett@livemail.uthscsa.edu

Title of submission: A clerkship survival guide

Type of submission: Poster or Poster-Discussion

Abstract:

Objective: Medical and surgical clerkships are an essential part of medical school training. Reform in medical education continues to highlight the importance of time spent in clerkships by expanding the time students spend in clinical settings. However, students often express anxiety over what is expected of them during a clinical rotation. In response, senior students in Veritas, the career advising and mentoring program at UTHSCSA, created a document, Survival Guide to Third Year Clerkships.

Project: Written by students, for students, the purpose of the guide was to help identify ways to succeed on individual clerkships by providing specific guidance relevant to each clerkship experience. The book was written by two fourth year medical students and is about 50 pages in length. Each section of the book contains tips, hints, important concepts to know, and suggested resources for each rotation. Examples of quality notes and oral presentations were provided. The book was distributed to all students electronically during third year clerkship orientation.

Outcomes: A mid-year survey was distributed to determine the effectiveness of the guide. 44 students responded for a response rate of 21%. 75% of students responding found the guide helpful in navigating clinical rotations. 72% and 60% of students surveyed found the examples of written notes and oral presentations helpful, respectively. Examples of written notes and “helpful hints” were rated the most valuable portions of the book.

Conclusions: Implementing a resource guide written by students is a helpful and easy way to reduce clinical performance anxiety and increase student confidence on clerkship rotations. We plan to have students update the guide annually and pass it on to underclassmen. Our goal is to have medical students better equipped for their time spent in clinical settings so they can make the most of such a key part of their medical training.
Submission for 10th Annual Innovations in Health Sciences Education Conference
Poster

1a. Name(s) of presenter(s):
Kimatha Grice, OTD, OTR, CHT

1b. School affiliation(s):
University of Texas Health Science Center San Antonio

2. Contact email address:
oxford@uthscsa.edu

3. Title of Submission:
The Use of Concept Maps in Occupational Therapy Education

4. Indicate type of submission (choose one):
Poster

5. Body of abstract (300 word maximum):

   **Short Abstract:** Descriptive survey study about the use of concept maps as a learning/teaching tool in occupational therapy education

   **Abstract:**

   This poster presentation describes the use of concept mapping as a teaching and learning tool for two courses in an entry level occupational therapy program. Critical thinking is a necessary skill for any occupational therapist, as well as most health related professions. Therefore, a primary goal for any entry-level occupational therapy program is to produce graduates who can think critically. Concept maps (CM) have been used as an educational tool in numerous and varied disciplines, from science to business to health fields. Concept maps were developed in 1972 by Joseph Novak while working to apply Ausubel's assimilation theory of learning. He defines them as "graphical tools for organizing and representing knowledge" (Novak & Canas, 2008, p.1). Concept maps provide an additional resource for learning in that they allow students to see and demonstrate their mastery of the concepts associated with a particular topic or body...
of knowledge (Daley & Torre, 2010). They also present students with a schematic summary of their learning (Revell, 2012) and can assist students in clarifying a topic (Daley & Torre, 2010). An assignment involving concept maps was utilized in two courses and then the students were surveyed about their perceptions and attitudes regarding the assignments.
Presenters:

Amalia Guardiola, MD – University of Texas Health Science Center at Houston, Amalia.Guardiola@uth.tmc.edu; Eric F. Reichman, MD - University of Texas Health Science Center at Houston, Eric.F.Reichman@uth.tmc.edu; Mark D. Hormann, MD - University of Texas Health Science Center at Houston, Mark.D.Hormann@uth.tmc.edu

Title: Enhancing fourth year medical student experience through pediatric case simulations

Type of submission: Poster

Abstract:

Educational Objectives - The acting internship (AI) rotation allows fourth year medical students to experience what residency may be like. The objective of this project is to allow the AI to experience the crucial thought process of integrating their clinical knowledge with the decision making skills through a simulated case commonly seen in their rotation through acute pediatric scenarios using human patient simulators.

Project Description - The project was developed and piloted in the fall of 2013. We created four pediatric cases: a 9 month old female with dehydration, a 10 year old male in asthma exacerbation, a 16 year old male with altered mental status, and a 9 year old female in diabetic ketoacidosis. Each case had a scripted clinical presentation with the anticipated responses. The scenarios were created with human patient simulators. The groups were composed of 2-5 AI working in a team based learning format with two faculty facilitators. The faculty gave the AI a clinical presentation and the AI needed to ask the correct questions in order to progress through the case. At the end of each case there was a 10 minute debriefing of the important concepts.

Outcomes - The qualitative responses of the AI's comments were positive. Representative comment included: “the cases were relevant and helped us to walk step-by-step through the management process, discussing each step along the way. I liked the informal small-group atmosphere”. The suggested areas of improvement were to include more laboratory data, and the opportunity to perform procedures.

Conclusions - Student reflections allowed us to see the areas of strength and improvement. Providing cases in a simulation environment was a good learning experience. We created this hand on simulation training to enhance the AI experience and increase their learning and preparation for future residency. It has been a well-received activity and can easily be shared with interested programs.
1a. Name(s) of presenter(s):
Jade Heverly-Campbell, Monica Castillo, Joseph Longoria, Nicolas Morton-Gonzaba, and Helia Nasrollahi

1b. School affiliation(s):
The University of Texas at San Antonio, and The University of Texas Health Science Center San Antonio

2. Contact email address:
jmheverly@gmail.com

3. Title of Submission:
Developing a TIME-Driven Pre-Health Professions Program at the Student Organization Level

4. Indicate type of submission (choose one):
Poster or Poster-Discussion √

5. Body of abstract (300 word maximum):

**Educational Objective:** Our objective was to utilize the Transformation In Medical Education (TIME) initiative aims developed by the UT System in developing a pre-health professions program at the student organization level to beneficially augment the Facilitated Acceptance to Medical Education (FAME) Program - a pilot partnership between UT San Antonio (UTSA) and the UT Health Science Center San Antonio (UTHSCSA).

**Description:** We developed a pre-health professions program at UTSA for students interested in a variety of health-related fields. The program was implemented by UTSA’s Lambda chapter of Alpha Epsilon Delta (AED) – a national honor society dedicated to excellence in pre-health professional scholarship and service during undergraduate education. Application to the six domains of the TIME initiative was achieved by focusing on the TIME transition milestones for undergraduate education, and forming partnerships with programs within UTHSCSA and the San Antonio community to accomplish them. Pre-health student members of AED were encouraged to take advantage of these opportunities by attending bi-monthly meetings, and participating in these clinically relevant community service programs throughout the semester.

**What was learned:** While designing and implementing the first semester of this program at UTSA it became evident that knowledge, skills and values of benefit to all future health professionals could be gained through educational experiences at the student organization level. Student organizations may play a unique role in implementing the
TIME initiative aims by providing clinical and community service opportunities for pre-health students to complement their traditional classroom curriculum.

**Future plans:** This experience suggests that a TIME-driven pre-health professions program at the student organization level may augment TIME pilot program partnerships such as FAME. This student-led initiative aspires to a more formalized role in the education of pre-health students with greater faculty involvement to assess progression and competency for the TIME transition milestones in the future.
Educational Objectives for the Project:
1. Develop and implement web-accessible modules to orient students to simulation center, equipment, and expectations for learners, prior to arrival in the center.
2. Evaluate student and faculty perceptions about the modules relative to applicability, benefit, ease of use, and efficiency.

Project Description
Faculty teaching large classes must implement innovative strategies to enhance learning and maximize use of time. These innovations are important when large classes are taught by multiple instructors, have multiple sections, and/or include both didactic and clinical skill components. In such situations, course information may be presented multiple times, resulting in lost time, and/or by multiple instructors who may present information inconsistently.

Faculty teaching a large undergraduate pediatric nursing class developed a web-accessible simulation orientation program composed of eight independent audio-visual modules of 10 minutes or less that could be viewed repeatedly. Faculty created six modules to demonstrate equipment use, tour the center, and review learner expectations using videos, SoftChalk and Camtasia. Two modules from YouTube reviewed other equipment. A Simulation Video Repository was created on a university server to host the program.

Outcomes:
Faculty (N = 7) and students (N = 207) completed a 12-item Likert-type survey that assessed their perceptions of the orientation modules with four domains: applicability, benefit, ease of use, and efficiency. Composite scores for each domain ranged from 3 to 15, and students and faculty were consistently favorable about all domains (i.e., mean scores ranging from 12.81 to 13.23).

Future Plans:
Short-term goals focus on improving and expanding the content and quality of modules and including assessments to measure the program’s cost-value benefit. Proximal long-term goals focus on extending the innovation to similar courses, semesters, and programs, whereas distal goals focus on marketing the orientation program to community partners to increase awareness of the simulation center.
Name(s) of presenters:

Mark Holden, Virginia Niebuhr, Karen Szauter, Mark Clark, Anne Rudnicki, Oma Morey, Cheryl Vaiani, Suzan Gerik, Ann Frye

School affiliations:

University of Texas Medical Branch

Contact email address:

mholden@utmb.edu

Title of Submission:

Mapping a Longitudinal Professionalism Theme in a Pre-clinical Curriculum

Type of submission:

Poster

Body of abstract (299 words):

INTRODUCTION: Principles relevant to the practice of medicine often do not fit within specific disciplines and require integration across medical training. Our medical school introduced five longitudinal themes into our curriculum. Professionalism, one of the themes, has been interwoven into all courses and clerkships. To ensure that we were achieving coordination of theme content, we reviewed theme content in our pre-clinical curriculum.

METHODS: We focused on the Problem Based Learning (PBL) cases used throughout the ten basic science/organ system pre-clinical courses. All 72 PBL cases were obtained at the end of the 2012-2013 academic year. A task force developed a coding scheme which identified nine professionalism domains: 1) altruism, compassion, empathy; 2) teamwork; 3) responsibility and commitment; 4) patient autonomy; 5) privacy and confidentiality; 6) informed consent; 7) honesty; 8) conflict of interest; 9) just distribution of resources. A clinician and non-clinician independently coded each PBL case; differences were resolved by consensus. Each reviewer coded the domain as 1) present, 2) having opportunity for development, or 3) not applicable to the specific PBL case.

RESULTS: All nine professionalism domains were represented across the two years; eight of nine domains were included in both years. Eight courses included at least three domains, two courses included eight domains, but one course included none. The most commonly noted domain was altruism, compassion, and empathy; avoiding conflict of interest was least often identified. All of the courses had multiple opportunities to expand theme domain content in their PBL cases.
CONCLUSIONS: While the PBL cases demonstrate all domains of the professionalism theme within the pre-clinical curriculum, there are opportunities to further enhance the theme through longitudinal reinforcement. The team has shared the results with course directors and the curriculum committee. We will use these results to augment the professionalism theme across the pre-clinical curriculum.
The usefulness of utilizing Bloom’s taxonomy into multiple choice questions to evaluate student learning outcomes in online tests

Introduction: This study is to evaluate the results of using multiple choice questions (MCQs) developed at defined Bloom’s levels to assess student learning outcomes in an online undergraduate research course with 40 students. Tests with MCQs can be developed for various content area and, if the test items are well designed, can measure achievement of multiple levels of learning objectives effectively. Applying Bloom’s taxonomy to create MCQs can further evaluate student learning outcomes and identify gaps at various cognitive levels in online learning environments.

Methods: Main concepts from each module were used to develop MCQs based on the Bloom’s taxonomy with a ratio of 30% Knowledge, 30% Comprehension, and 40% Application. Content validity and Bloom’s classification of the questions were reviewed and verified by another content expert. Students took the tests from home. Practical online testing procedures were used to thwart student’s cheating. The midterm assignment including short answer questions by analyzing research articles was used to establish benchmarks for comparison.

Results: The preliminary data showed significant differences in student performance within each Bloom’s level (knowledge 92.1%, comprehension 77.2%, and application 76.4; F(2, 37)= 19.83, p<0.001). A significant correlation was observed between the comprehension domain and the midterm assignment (t(39)= 1.83; p<0.01), and application domain and the midterm assignment (t(39)= 1.86; p<0.01).

Conclusions: The result suggests that comprehension and application level questions were effective in assessing higher level thinking in online tests. Hence, strategic use of MCQs with comprehension and application levels is important when assessing student performances in online courses. This study was conducted with an online undergraduate course with limited number of students. Further studies with graduate students and a larger sample size in tradition and online settings are needed to validate the usefulness of utilizing Bloom’s taxonomy into multiple choice questions to evaluate student learning outcomes.
1a. Name(s) of presenter(s): Cameron Jeter, Ph.D.

1b. School affiliation(s): The University of Texas Health Science Center at Houston (UTHealth) School of Dentistry

2. Contact email address: cameron.b.jeter@uth.tmc.edu

3. Title of Submission: Longitudinal Student Perception and Self-Report of Multitasking Behaviors by Course Structure

4. Indicate type of submission (choose one):

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<th>Demonstration</th>
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5. Body of abstract (300 word maximum):

BACKGROUND: Students increasingly have access to and use technology in the classroom. With this barrage of instant information, students may be more likely to multitask; yet this rapid task-switching has been shown to be detrimental to attention and learning retention. We wondered if student awareness and perception of multitasking would impact classroom task switching behavior, whether these perceptions changed throughout the first semester of dental school, and if task-switching activity varied by course structure. METHODS: On the first day of class, faculty defined multitasking, discussed its barriers to attention and learning, and lead students in an interactive demonstration of multitasking pitfalls. As a baseline, students answered three survey questions about current multitasking behavior and opinions. These same students completed the survey two more times throughout the semester in both lecture hall and small group settings. Group responses were compared across time points and class settings. First, we assessed if students’ opinions and self-reported behaviors changed throughout the semester. Second, we considered whether teaching venue had an impact on their responses. Finally, we evaluated if their self-reported behaviors reflected their opinions on multitasking. RESULTS: As the semester progressed, an increasing number of students reported that they got less done while multitasking, yet simultaneously an increasing number of students reported a rise in multitasking activity during class. Multitasking behaviors were more prevalent in the lecture-based course. CONCLUSIONS: Student instruction and opinion on multitasking is not always reflected in behavior. Increased experience with graduate level work led students to recognize the pitfalls of multitasking, but did not attenuate self-reported task-switching behaviors. Course structure does impact multitasking opinions and behaviors; students involved in self-directed small group activities were less inclined to multitask than those in a classroom lecture.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Names of presenters:

Haneme Idrizi, MD  
Assistant Professor  
Child Health Discipline Coordinator  
UTHSCSA Department of Pediatrics  

Beth Payne, MAEd, C-TAGME  
Director, Academic Programs  
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Title of Submission:

Learning in Action: The creation of a hands-on, interactive and practical medically-themed TBL  

Type of submission:

Poster OR Poster Discussion
Abstract:

**Educational Objectives:**
1. Share our experiences in creating and implementing this innovative form of medical education and inspire others to incorporate similar methods in their teaching.
2. Facilitate and simplify the process of crafting interactive and collaborative medically-themed TBL sessions.

**Project Description:**
Team Based Learning (TBL) is a method of learning that incorporates the key components of individual accountability, group collaboration, and knowledge application. TBL has proven to be very effective in medical education; however, it may be difficult to implement when teaching complex medical topics that require hands-on learning and clinical reasoning.

In order to develop a creative, interactive, and collaborative TBL that would effectively instruct second year medical students on the evaluation of pediatric short stature, we incorporated various teaching tools within the session. One of the biggest hurdles of teaching TBL in a large auditorium format is implementing simultaneous reporting. To meet this challenge, we used innovative teaching tools such as a wiki page and document reader. Another hurdle is designing an application exercise that simulates students’ future clinical experiences. Our solution was to have the students do hands-on learning activities with authentic materials, such as laboratory studies, that built upon each other. The end result was each team could demonstrate the knowledge they gained by preparing for and participating in the learning activities.

Although the implementation of this interactive session was a positive experience, the time and effort required to create the TBL was lengthy and cumbersome. We plan to share our experiences in order to assist others in creating similar sessions.

Based on the knowledge we gained from this experience, our future plans include creating a user-friendly TBL template that can be individualized and serve as a valuable resource in undergraduate and graduate medical education.
An Interprofessional Experience: Moving Beyond Role Identities

Presenters:
Nadia Ismail¹, Rita Dello Stritto², Catherine L. Hatfield³, Cayla R. Teal⁴, Elizabeth A. Nelson⁵
1 Assistant Professor, Section of General Medicine, Baylor College of Medicine, Houston, TX
2 Associate Professor, Texas Woman’s University, College of Nursing
3 Clinical Associate Professor, University of Houston College of Pharmacy
4 Assistant Professor, Department of Medicine; Director, Educational Evaluation and Research, Office of Undergraduate Medical Education, Baylor College of Medicine, Houston Texas
5 Associate Professor, Department of Medicine; Senior Associate Dean, Office of Undergraduate Medical Education, Baylor College of Medicine

Type of Submission: Poster
Contact Information: Dr. Nadia Ismail, Ismail @bcm.edu

Educational Objectives for the Project
In this inter-professional education exercise, students were expected to: (1) recognize the individual expertise each profession brings to patient care delivery, (2) demonstrate respect and trust for inter-professional team members and (3) broaden their repertoire of effective communication skills with their team and patients’ families.

Project/Program Description
The exercise begins with time for participants to learn about one another. This simulation exercise requires students from medicine, nursing and pharmacy to discuss responsibility for their team’s medical error and explain it to a patient’s emotional family member. Then the scenario is provided including each member’s role in the error. After a planning session, the team meets with the family member, played by a trained standardized actor. Finally, educators from each discipline jointly lead a standardized debriefing session. Actor observations reveal desirable and undesirable communication strategies, as well as trigger student reflection about their team’s approach.

Outcomes (if available) or what was learned
Checklists completed by actors on 70 teams revealed that teams perceived as having responded empathetically to the actor (n=48, 68.6%) were less likely to have a dominating team member (p=0.01) and had two or more members who were effective in dealing with emotions (p=0.005). The more empathetic teams’ communication styles included providing more cohesive information (p=0.019), more joint discussion (p=0.024), and greater comfort in seeking help from one another (p=0.004).
### 1a. Name(s) of presenter(s):

Kristine Kamm, PhD¹, Angela Mihalic, MD², JoyLynn Reed, PhD¹,²,³*, Kim Hoggatt Krumwiede, MA³

*deceased

### 1b. School affiliation(s):

UT Southwestern ¹Graduate School of Biomedical Sciences, ²Medical School, and ³School of Health Professions

### 2. Contact email address:

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### 3. Title of Submission:

CONVERGENCE: Faculty development for facilitating interprofessional groups of students

### 4. Indicate type of submission (choose one):

Poster  X  Poster or Poster-Discussion  Demonstration

### 5. Body of abstract (300 word maximum):

Educational objectives for Convergence faculty development are to 1) orient faculty to interprofessional education (IPE) competencies, and 2) introduce them to strategies for leading students to milestones (recognition and understanding) to obtain competencies.

Program Description:
Convergence, in its fifth year, is an IPE initiative at UT Southwestern that incorporates learning communities across medical, health professions and graduate schools. Goals are to develop, implement and assess activities to improve understanding of and respect for the roles of other health and biomedical professionals, enhance interprofessional communication, and increase knowledge of effective teamwork. Forty, mixed, small groups of first-year students meet twice in the spring to discuss teamwork and an interdisciplinary case highlighting an annual science-of-medicine theme. Each group is facilitated by a faculty physician and a faculty member from either the health professions or graduate school. An annual faculty development session was implemented in year three of the program to educate facilitators about imperatives for IPE, communicate effective methods for facilitating IP small groups, and convey key information on curriculum content. Sessions are held at noon and lunch is provided. Participants are assigned seats by group so that co-facilitators are seated together and meet over lunch.

Outcomes:
Faculty development sessions serve as “an icebreaker,” as described by one participant, to introduce co-facilitators from different professions before meeting with their small groups. Sessions have evolved based on feedback: second and third sessions were offered for CME/CE credit and the third session includes an orientation to the science-of-medicine theme-based case study. About 90-100 facilitators participate. Survey results yield average SA/A of 82 and 84 by year concerning organization and purpose of sessions and clarity of presentations. However, negativity about IPE remains for some faculty.

Conclusion:
Organization of faculty development for IPE requires cycles of implementation, feedback and adjustment, as well as a positive attitude.
10th Annual Innovations in Health Science Education Conference
Abstract Submission:

1a. Name(s) of presenter(s): Lauren Kane, MD, Chad Stasik, MD, and Ed Sako, MD

1b. School affiliation(s): The University of Texas Health Science Center San Antonio
   Department of Cardiothoracic Surgery

2. Contact email address: KaneL@uthscsa.edu

3. Title of Submission: The Integrated Cardiothoracic Residency: a New Paradigm

4. Type of submission: Poster

5. Body of Abstract (300 word maximum):

Along with the continual growth and evolution of the specialty, so arose the need for forward thinking in education of future cardiothoracic surgeons. The time for a new paradigm in training cardiothoracic surgical residents had come. Traditional cardiothoracic surgery training has consisted of completion of a 5-7 year general surgery residency followed by a 2-3 year cardiothoracic surgery program. As a means of addressing perceived deficiencies in the traditional training, selected programs have adopted integrated cardiothoracic training programs that take participants directly following medical school.

In 2009, the Department of Cardiothoracic Surgery at the University of Texas Health Science Center San Antonio, initiated such a program. Over the past decade, there had been a progressive decrease in applicants to all traditional programs. At our institution, from 2009 to 2011, there was an average of 18 applicants per year to our traditional program. From 2010 to 2012 there has been an average of 124 applicants per year to our integrated program. Currently in the integrated program, the first 2 years of the residency consist of “standard” general surgery rotations are interspersed with rotations focused on cardiac and vascular related fields. In the last 4 years of the residency, the rotations are similar to the “traditional” cardiothoracic residency.

Our experience would suggest that there is a renewed interest in Cardiothoracic Surgery. Concerns about the ability of medical students to make such specialized career choices are unfounded and mimic those of surgical specialties such as neurosurgery, orthopedics and otolaryngology which have had residencies immediately following medical school for decades. Future plans include studies that are now underway to track the applicants and their career choices. Success of these programs will be seen in the number of applicants in future years and the board certification process as the residencies mature.
Title of Submission: Family Medicine Resident and Faculty Research and Scholarly Activity: Identifying Ways to Meet New ACGME Requirements

Type of Submission: Poster or Poster-Discussion

Body of Abstract:

Introduction: On September 29, 2013, the ACGME approved new program requirements for Family Medicine (FM) residencies. Effective July 1, 2014, residents will be required to complete at least two research and/or scholarly activities (RSA) with one activity in quality improvement. In anticipation of these changes, we measured residents’ and faculty members’ perceptions of knowledge, skills and attitudes towards RSA to enhance our curriculum.

Methods: FM residents (N=29) and faculty (N=8) completed an online survey in August 2013 measuring knowledge, confidence in research skills, and RSA attitudes using a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Means were calculated and Mann-Whitney tests were used to determine statistically significant differences between groups.

Results: FM residents were most knowledgeable about research article components (3.90). Faculty were significantly more knowledgeable of methods to create presentations (p=0.0292) and dissemination methods (p=0.0353). Residents were most confident in applying evidence-based medicine in their practice (3.76). There were significant differences between faculty and residents’ ability to formulate research questions (p=0.0163) and deliver formal presentations (p=0.0393). Faculty had significantly more favorable attitudes on all items measured (p<.05). Common barriers preventing residents from doing research were no interest (residents=88%; faculty=79%) and no dedicated time (residents=88%; faculty 71%).

Conclusions: This study can be replicated by other FM residencies looking for innovative ways to enhance their curriculum. We plan to tailor our curriculum based on resident interest and gaps in knowledge, provide more opportunities for residents to
work with faculty on established projects, and improve residents’ confidence in their dissemination abilities.
ABSTRACT SUBMISSION
Submitted 10.31.13

10th Annual Innovations in Health Science Education Conference
Sponsored by the University of Texas Kenneth I. Shine Academy of Health Science Education

Name of Presenter:
Tiffany Kindratt, MPH¹

Other Authors:
Abid Raza, PhD,² John L. Anderson, MA,³ Darrell JR Evans, PhD⁴

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Title of Submission: Don’t be scared: Demystifying statistics in postgraduate medicine

Type of Submission: Poster or Poster-Discussion

Body of Abstract:
Introduction: Research has shown that medical learners have anxiety towards statistics instruction. The objectives of this study were to evaluate the statistics curriculum at Brighton & Sussex Medical School’s Postgraduate Medicine in 3 ways: (1) pre- and post-knowledge of basic statistics in a research methods and critical appraisal module (MDM10); (2) pre- and post-knowledge of advanced statistics in an essential statistics for medical research module (MDM66); and (3) student satisfaction.

Methods: Data was collected from March to May 2012 from postgraduate students at Brighton & Sussex Medical School. Students in MDM10 (N=22) completed a pre-knowledge test prior to the statistics lecture on Day 4. Students rated their perceptions of knowledge on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). At the end of the module, students completed a post-test to determine knowledge gained and satisfaction. Students enrolled in MDM66 (N=8) completed a pre-test rating their perceptions of advanced statistics knowledge on the same 5-point Likert scale on the first day of their module. At the end of the week, students completed a post-test to determine knowledge gained and course satisfaction. Mean changes in self-reported knowledge were measured using Wilcoxon-signed rank tests.

Results: Students were most anxious about their ability to plan a study using statistics (2.83) and interpret/explain results of their statistical analysis (2.83). Students’ showed a significant improvement in knowledge of basic statistics in both MDM 10 (p=.041) and MDM 66 (p=.027). Students reported that the instruction was well-paced and examples were helpful but wanted more examples for each statistical test.
**Conclusions:** Students had a slight to moderate level of anxiety towards learning statistics and showed improved statistical knowledge in both modules. This study can be replicated in other medical education settings to find ways to improve the statistics curriculum and reduce statistical anxiety among medical learners.
Principal Investigator:

1. a. Paul G. Loubser, MD,  
   Assistant Professor, Department of Anesthesiology,

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3. Moodle Based Learning Module in Cardiovascular (CV) Anesthesia

4. Poster Discussion

5. Body of Abstract

Goals and Objectives:

Develop a CV Anesthesia Learning Module that is internet based and provide an educational resource on CV Anesthesia and Basic pTEE for UT Medical School at Houston (UTMS-H) anesthesia resident learners who want to build their intellectual knowledge; want a didactic education source for discussion in the Operating Room (OR

Project Description:

The internet holds a plethora of valuable information resources that add to the educational experience. Many of these resources are multidimensional, in that they combine visual, experiential, and factual formats into a stimulating and exciting educational tool. In January 2013, the author commenced on online e-learning resource in CV Anesthesia for residents doing their CV anesthesia rotations, in response to residents’ evaluations of faculty stated that they wanted more didactic education. The challenge was to develop a resource that residents could review at their leisure on the internet and then use as a resource for discussion, thereby fulfilling the requirement for on-site didactic education. Using a private domain, a beta-testing site called “E-learning CV Anesthesia Resource was published on the internet consisting of a monthly topic. Each topic contained a variety of educational items, power point presentations,
peer-reviewed articles, links to websites that offer educational items that are not peer-reviewed and links to other sites that have simulators, such as the University of Toronto. For each monthly module, a quiz of 6 MCQ was appended. This site was published using the Moodle template. (Modular Object-Oriented Dynamic Learning Environment) is a free software e-learning platform, also known as a Learning Management System, or Virtual Learning Environment (VLE). The CV Anesthesia course is planned for 24 months will achieve completion in December 2014. The Basic pTEE course is slated for completion in July of 2014.

**Evaluation of Outcomes:** The ongoing receptivity of learners to the module is tracked by conducting surveys, tracking login and logout on Moodle (e-attendance), and assessing quiz scores.

**Future Plans:** Audio lectures may be embedded using WizIQ or Audacity. One other advantage of this tool, is that it may be shared with other Departmental Anesthesiology sections, or institutions that service UTMS – Houston anesthesia residents, becoming a larger Texas Medical Center resource, and assuring standardization of the education format across institutions.
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Title: Enhancing Physician Assistant Student Clinical Rotation Evaluations with the RIME Scoring Format: A Retrospective Three Year Analysis

Type of Submission: Poster

Introduction: As health professions educators, we are constantly searching for ways to improve assessment. The RIME framework, created by Louis Pangaro, MD, of the Uniformed Services University of the Health Sciences was adopted by the author’s physician assistant (PA) program and added to the existing competency based clinical rotation evaluation. The mnemonic represents R-Reporter, I-Interpreter, M-Manager and E-Educator. The question this project sought to answer was whether higher performing students get better RIME scores on clinical rotations than lower performing students. Descriptive statistics and analysis of results will be discussed for the PA Classes of 2010-2012.

Methods: The RIME scoring format was added to the PA program’s existing competency based evaluation. A detailed description and explanation page was provided to each preceptor. With implementation of the E-value® electronic clinical rotation system, student evaluations were completed online and easily accessed for student performance ratings and for data analysis. RIME scores were tabulated for the top and bottom quartiles of Physician Assistant National Certification Exam (PANCE) scores for the PA Classes of 2010-2012 (n=54). A Wilcoxon Matched-Pairs Sign Rank test was performed on these samples ranked by their PANCE scores. Correlations were performed between RIME/ PANCE and RIME/ End of Rotation (EOR) exam averages.

Results: The Wilcoxon Rank analysis revealed a statistically significant positive difference (p < .03) between the RIME scores of upper and lower PANCE outcome quartiles. Pearson correlation analysis indicated very weak correlations between the RIME/PANCE and RIME/EOR exam averages.

Discussion: This project retrospectively validates the RIME evaluation format. Using the PANCE exam scores as a standard, the better performing PANCE students received higher RIME scores on the clinical rotation preceptor evaluations. The RIME evaluation method is descriptive and easy to understand for preceptors and students. Preceptors can easily assign a score based on the student’s performance. By understanding the RIME characteristics, a student can strive to improve on each rotation and faculty can use it as a formative evaluation to gauge student progress.
Presenters: Jennifer Knudtson, Jan Bruder, Barbara Turner, Randal Robinson, Jan Patterson

School affiliation: UTHSCSA School of Medicine

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Title of Submission: Identification of a Knowledge Gap in Menopause Treatment and Education through an Evening Symposium

Type of Submission: poster

Body of abstract

Educational Objectives for the Project: Creating a need base symposium to address knowledge gaps for postmenopausal symptoms using hormone therapy.

Project/Program Description: An electronic needs assessment survey was administered to our medical community of South Texas which revealed a need for education on treatment of menopausal symptoms. There were knowledge inconsistencies with the latest guidelines on hormone therapy delineated. The participants desired education through symposium (31%) with online accessibility (30%). We created a multi-disciplinary evening menopause symposium to address “A decade after the Women’s Health Initiative: Where are we with hormone therapy?” Through the symposium we addressed the literature and guidelines through presentations and a case based panel. After the symposium, we administered a post-survey to participants to evaluate if knowledge inconsistencies improved through our education.

Outcomes: 487 participants answered the pre-survey. 120 participants attended the menopause symposium. 51 participants answered the post-survey.

After the menopause symposium, the post survey decreased in the number of knowledge inconsistencies. The post-survey responses appropriately defined the appropriate age, symptoms and patients to offer hormone therapy to based on recent guidelines. Prior to the symposium, only 27% (129) respondents considered age extremely important compared to 51% (24) on the post survey. When considering primary prevention versus treatment for symptoms, in the pre-survey 67% (324) used severity of symptoms as extremely important for a reason to start HT compared to 87% (41) post-survey. In considering HT first line for moderate to severe hot flashes providers from the pre-survey 35% (168) compared to 46% (22) for the post-survey.

Conclusions: An evening medical educational symposium appears an effective educational tool for our medical community to address new guidelines. It is also available on-line for continued education. We will hopefully address other areas of knowledge gaps and provide the appropriate education to our health care community in this fashion.
Conclusions/Future plans

Dealing with an emotional family member promotes team cohesion and use of a variety of communication strategies. Students appear unaware that team-based communication strategies are more effective and can be more positively received by patients or family members. Our simulated experience is a foundation for the debriefing in which discussion leaders help multidisciplinary students identify with one another and become more comfortable in discussing patient care and errors with members of other disciplines.
**Poster Submission**

*Presenters and School affiliations:*
Ruth Levine\(^1\), Lisa Carchedi\(^2\), Dawnelle Schatte\(^3\), Brenda Talley\(^4\), Lindsey Pershern\(^5\), Kathy Trello-Rishel\(^5\), Dwight Wolf\(^1\), Alison Ownby\(^3\) and Peggy Hsieh\(^3\)

1. The University of Texas Medical Branch, Galveston 2. Southwestern Medical Center, Austin 3. The University of Texas Health Science Center, Houston 4. The University of Texas Health Science Center, San Antonio 5. Southwestern Medical Center, Dallas

*Contact email:* rlevine@utmb.edu

**Title:** The UT System DSM-5 TBL Curriculum: A Common Curriculum for a Common Challenge

**Type of Submission:** Poster

**Abstract:**

*Educational Objectives for the Project*
In May 2013 the Diagnostic and Statistical Manual of Mental Disorders, 5th edition was released by the American Psychiatric Association, requiring all psychiatric educators to modify their curriculum. We pooled our creative resources to develop a common curriculum for the DSM-5 that could be used by all UT system psychiatry clerkships.

*Project/Program Description*
Educators from UTMB in Galveston created workshops in Team-Based Learning (TBL) which we conducted at the other UT System schools to ensure that all educators who would be using TBL and developing modules were comfortable with the method. We chose 12 topics and divided them among the schools. After drafting modules, a system of peer review was conducted and administered among schools; and modules were also sent to an external “expert” peer reviewer to ensure the material was high quality and adhered to the TBL method. After piloting modules with 3rd year students, student and faculty feedback was shared among investigators and materials were further refined. The curriculum was analyzed for student satisfaction and faculty facilitation skills. Students were surveyed on their attitudes towards teams and their classroom engagement while engaging in the new curriculum and in comparison to the old curriculum.

*Outcomes*
Preliminary analysis suggests that both student and faculty satisfaction with the new curriculum is high, and the majority of students reported that the TBL exercises were helpful in both contributing toward developing “information synthesizing skills” as well as “interpersonal and communication skills”.

*Conclusions*
There were challenges in developing a curriculum across 4 schools at 5 sites, including maintaining communication and agreeing upon common pre-class preparation materials. However the rewards of collaboration enabled us to develop a significant curriculum in a short period of time, outweighing the challenges. We believe our experience could be a model for future such collaborations.
November 7th, 2013

**10th Annual Innovations in Health Science Education Conference**  
*Sponsored by the University of Texas Academy of Health Science Education*  
**Submission Deadline: Submit to**

Please submit an abstract in MS Word format with the following information:

**Name(s) of presenter(s) and school affiliation(s):**  
Celina Garza Mankey, MD and John Luk, MD  
UT Austin TIME/SHAPE Program  
University of Texas-Southwestern-Austin  
University Medical Center-Brackenridge/Seton Healthcare Family

**Title of Submission**  
UT Austin SHAPE Summer Clinical Immersion Program 2013: *Lessons Learned*

**Objectives:**
1. Review the SHAPE (UT Southwestern, Houston, Austin Professional Education) summer clinical immersion program held in Austin  
2. Discuss the opportunities and challenges in developing the program  
3. Review outcomes from student and mentor surveys and feedback  
4. Derive lessons learned that other TIME partnerships could apply

**Type of Submission** (poster or demonstration):
Poster

**Educational Objectives for the Project**
1. Analyze the impact of inter-professional development and practice of health care professionals on health care teams and patient care  
2. Appraise contributions of individual health care professions on healthcare delivery settings  
3. Demonstrate professional conduct and professionalism in daily practice  
4. Create, as student teams, application or service learning projects in the local healthcare setting  
5. Describe patient and family healthcare and/or patient experience interactions  
6. Reflect on the impact of course experiences and assigned readings on one’s career interest

**Project/Program Description**
This summer for 5 weeks from July 15, 2013 to August 15th, 2013, University Medical Center Brackenridge and Dell Children’s were visited by 48 UT Austin Pre-medical students as part of the first UT Austin SHAPE (UT Southwestern, Houston, Austin Professional Education) Summer Clinical Immersion Course. The University of Texas at Austin has collaborated with UT Health Science Center Houston Medical School and UT Southwestern School of Medicine to create a seven-year course of study that reduces the traditional undergraduate and medical professional times-to-degree by one year each, and adds a “flex year” during the years in residence on a health campus that will enable intensive study and enhance professional development.

Nine amazing clinician-educators served as our students’ mentors and facilitated ongoing small group sessions with students. They created and delivered small group learning experiences on the
following topics: Professionalism, Basic Communication Skills, Basic Patient Interviewing Skills, Social and Spiritual History, Sexual History, and Culture and Medicine.

The highlight and most important feature of this unique course were the inter-professional health observer-ships. These precious experiences allowed students a privileged view into our profession and practices. Our preceptors came from all over Austin and we reached out to members of the Travis County Medical Society as well as Seton/UT Southwestern faculty.

Other highlights of the course included team projects that student teams during the 5 week course. They implemented a service learning/application project that touched on a local healthcare setting or issue. They sought collaborations and consultation from preceptors, mentors, and local organizations in this process.

One of the mentors facilitated an exercise on self-awareness and mindfulness prior to the Blanton Museum experience. Students were assigned to generate a self-portrait. Student teams also wandered among the beautiful works of art in a self-guided tour of the Blanton Museum and discussed their observations and inferences of the pieces as they related to patients, practitioners, and healthcare. Another physician from Pediatric Palliative Medicine and an inter-professional panel of practitioners engaged the student teams in review and discussion of a complex pediatric case scenario using the Schwartz Rounds format.

**Outcomes** (if available) or what was learned

All the students completed an evaluation of the program. The students rated the 5 week experience highly and reflected that the objectives for the course were reached. Here are some comments from the students about the course:

“I really enjoyed seeing healthcare from the points of view of the patients because not many students are exposed to their perspectives, but their views are perhaps the most important.”

“This course helped me understand the true depth of specialties that are present in the medical field. When I used to think of the hospital setting, I would only picture the doctors and nurses. However, through this experience I have realized that there are so many more integral team members in the healthcare field.”

We also gathered qualitative feedback from our mentors who rated the experience highly as well. Constructive criticism regarding scheduling of observer-ships was reviewed.

**Conclusions/Future Plans**

This was the first year that this inter-disciplinary clinical immersion program was held for UT-Austin Pre-Medical students in the SHAPE program, and many lessons were learned. We would hope to share our experiences with other groups in undergraduate medical education for future planning of these types of programs and experiences. We plan to continue this program next year with a summer clinical immersion course for first and second year pre-medical students.
10th Annual Innovations in Health Science Education Conference
University of Texas Kenneth I. Shine Academy of Health Science Education

Names of presenters:
- Sandra Marquez-Hall, PhD
- Yolanda Lane, MEd, CHES
- Raina Smith, MS

School of presenters
University of North Texas Health Sciences Center, Texas College of Osteopathic Medicine, Reynolds Interprofessional Geriatric Education and Training in Texas

Title of Submission
Findings from a three year review of medical student attitudes toward a geriatric training program and an early practice model in the care of older adults.

Type of Submission (small group and/or poster presentation)

Body of abstract (330-word maximum)
Between 2005 and 2030, the number of adults in the US aged 65 and older will almost double from 12% to almost 20% of the population, with those who are 80 and over, “the oldest old”, expected to nearly double, from 11 million to 20 million. This group will place increased demand on the patchwork of health care services due to the epidemic of chronic disease such as dementing disorders, arthritic conditions, diabetes, hypertension, and heart disease.

The objective of this research study was to identify and evaluate the attitudes and confidence level of students related to knowledge and skills of geriatric medical syndromes identifying target areas for delivery of geriatric education; and to identify the knowledge, skills, and perceptions related to health care of older adults. Information from this research may help improve the development and delivery of medical education curriculum related to provision of care to older adults.

Students were surveyed as to their attitudes towards the care of older adults, the survey was administered as a pre-test during first year orientation and as post-test after student exposure to embedded geriatric curriculum and the Seniors Assisting in Geriatric Education SAGE Program. Results were evaluated as to the impact of the educational program.

Educational Objective(s) for the Project
- Study of the impact of demographic trends on medical education curricular development
- Exploratory analysis of medical students attitudes toward older adults
- Findings based on the Impact of geriatric content in medical education Y1 and Y2 students
Project/Program Description
Along with embedded geriatric curriculum in first and second year medical students were actively involved in the (SAGE) program. Through SAGE students made eight home visits with a senior patient using competency based assignments. Faculty mentors using the CANVAS open source learning management system review and grade visit reports submitted by participants and provide feedback to the students as they progress through the 8 home visits.

Outcomes (if available) or what was learned
Conclusions – will highlight survey results over three years (n=617).
Future plans-the study has financial support for another 4 years and SAGE has been expanded to include other medical professions (PA, PT, Pharma).
1a. Name(s) of presenter(s):

Glen A. Medellin, MD, Pediatrics, Angela Myatt, MSc, Library, Eric Willman, MSIS, Information Technology

1b. School affiliation(s):

UTHSCSA

2. Contact email address:

medelling@uthscsa.edu

3. Title of Submission:

INFORMATION MASTERY: ACCESSING CLINICAL INFORMATION IN THE MOBILE AGE

4. Indicate type of submission (choose one):

Poster

5. Body of abstract (300 word maximum):

**Background:** Our institution has a 5-day transition to clerkship course called Clinical Foundations for students as they transition to the clinical setting. As part of this course, all students complete a 2-hour session on information mastery. The session was recently revamped and co-taught by a team consisting of a physician, a librarian and an IT specialist.

**Objectives:** Session objectives are to: 1) Understand how to access and navigate online resources and mobile resources, 2) Be able to identify best information resources for patient care and 3) Know how to find answers to clinical questions.

**Design/methods:** Groups of 25 Students were taught in the computer lab using engagement strategies such as team-learning, online polling and small group discussions. The IT specialist reviewed mobile apps, mobile device security and assisted the students in correctly setting up their mobile devices. The librarian reviewed online resources available to the students as well as the pros and cons of Wikipedia, Google, Google Scholar, online hypertexts and PubMed. The physician then had the students actively work through clinical questions based on clerkship scenarios using mobile devices and desktop workstations.

**Results:** Students were given an evaluation at the end of the session. 186 out 203 (91.6%) students completed the evaluation. Of students who completed it, 99% felt that the information presented was appropriate for their level and 97% agreed that the information learned was useful. 99% of the students felt that the information was presented in an organized and clear manner. 96% felt that they would be able to apply what they had learned in the session. Instructors described gaps in students knowledge and skills.

**Conclusions:** Despite having to look up clinical information in the foundational curriculum, students did not feel prepared to find information quickly in the clinical setting. They also had difficulty deciding which resources to use based on their clinical question. Students were eager to learn about mobile device applications and needed guidance in how to secure patient information. Students had a very high level of satisfaction with the information presented and the multidisciplinary teaching style.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Innovations in Health Science Education

Name of Presenter: Dwayne F. More, DNP, RN, CNE
School affiliation: University of Texas Medical Branch
Contact e-mail address: dfmore@utmb.edu
Title of Submission: Introducing Telehealth to Pre-licensure Nursing Students
Type of Submission: Descriptive Poster
Body of abstract:

Telehealth has emerged as an important tool for healthcare providers, giving clients greater access to health care. Nurses are an important part of delivering telehealth, yet content related to telehealth delivery is not currently taught in many nursing courses. The study’s purpose was to introduce telehealth concepts to pre-licensure nursing students via a learning module and assessing their understanding of the material using a pre and post-test design. A two-tailed $t$ test was used to analyze the difference between the pre and post-test scores supported the research question: “Is the use of a new telehealth learning module effective in teaching pre-licensure nursing students about telehealth?”

Multiple regression analysis was performed on the independent and the dependent variables demonstrating that demographic variables had no influence on the outcome of either test. The results suggest that the module is an effective learning tool.
Authors:
Christopher J. Moreland, MD MPH: morelandc3@uthscsa.edu
Kanapa Kornsawad, MD
Bret Simon, PhD
The University of Texas Health Science Center at San Antonio

Title: The Resident as Teacher: A New Elective Incorporating Reflective Writing, Concept Mapping, and Adult Education Theory

Type of submission: Poster (innovative program)

Abstract:
Educational Objectives:
- Describe a new learner-centered Resident as Teacher month-long elective incorporating adult education theory, reflective writing, and concept mapping
- Discuss the utility of reflective writing and concept mapping as evaluative strategies for a teaching elective

Program Description:
UTHSCSA internal medicine residents’ formal teaching development was limited to an annual one-day workshop. We sought more intensive exposure to teaching pedagogy, centering on resident interests while incorporating reflective writing and concept mapping. CM and BS (academic hospitalist and educational psychologist) created a month-long, multipronged Resident as Teacher (RAT) elective. The resident and faculty discuss teaching experiences and goals. Those goals guide article selection from medical and general education literature to focus on specific issues (e.g., feedback, bedside teaching) beyond 15-20 core articles. Residents write reflective responses to the articles and ongoing teaching experiences, with interactive faculty commentary. Fourth, residents participate in teaching activities with faculty feedback. Finally, residents iteratively create concept maps in parallel with familiarity with educational theory (e.g., formal/informal feedback, learning climate, RIME model).

Outcomes:
During 2012-2013, three residents participated; the first (KK) is now faculty. During 2013-2014, eight residents will have rotated. Interactive reflective writing samples have evolved from simple reporting to carrying more insight; iterative concept maps indicate increasingly interrelated understanding of clinical teaching principles. Resident feedback indicates increasing confidence in teaching ability. A recurring theme is the need to reframe perceptions of the teaching process, so that they focus on teaching elements rather than clinical aspects alone.

Conclusions:
By designing our RAT elective as an interactive conversation about adult learning theory, residents are enthusiastically engaged in developing skills as clinical teachers. Reflective writing and concept mapping act as evaluative modalities for
residents to reassess their role responsibilities. We aim for residents complete the rotation with sustainable, balanced views of their clinical educator identities.
10th Annual Innovations in Health Science Education Conference Submission

Name(s) of presenter(s) and school affiliation(s)

Oma Morey, PhD  University of Texas Medical Branch
Lisa Cain, PhD  University of Texas Medical Branch
Susan M. Gerik, MD  University of Texas Medical Branch
Jeffrey Rabek, PhD  University of Texas Medical Branch
Mark Clark, PhD  University of Texas Medical Branch
Anne Rudnick, EdD  University of Texas Medical Branch
Jerome Crowder, PhD  University of Texas Medical Branch
Matthew Dacso, MD  University of Texas Medical Branch

Contact email address: ommorey@utmb.edu

Title of Submission: Don’t Leave Part of Yourself at the door!

Type of Submission (poster or demonstration)  Poster

Body of abstract (300-word maximum)

Project Objectives

Although there is much talk about students’ professional identity development, little is discussed about their personal identity when entering professional training. As students develop their professional identity, they also reconstruct their personal identity, often causing tensions between the two. If professional education demands become too high, the sense of self especially the creative self-identity can become lost leading to burnout. Many students think their creative identities must be left at the door when entering professional training. The project’s objective was to provide an interprofessional venue allowing students/faculty to expressive their creative-selves while going through a healthcare career.

Project Description

The Creative Expression: Mind, Body and Spirit exhibit was created in August 2012 and repeated in 2013. It was held during student orientation week to welcome new students and show them how faculty and students maintain the creative parts of themselves. A call for submission of any form of creative expression was sent out school-wide. External funding was secured.

Outcomes

Eight-seven faculty and students from the Schools of Medicine, Nursing, Health Professions, and the Graduate School of Biomedical Sciences have exhibited creative works. Artistic
presentations included visual, media, three-dimensional and performing art. Both events were well attended by incoming student, current students, faculty and staff. Feedback from both attendees and participants was positive.

Conclusion/Future Plans

The Creative Expression exhibit, supported by four schools, is a wonderful addition to student orientation week activities. The event and audience doubled in size from the first to the second year. The consortium intends to continue offering the exhibit, although there is some concern about finding a larger venue as it grows. In the future, they hope to continue to expand the use of arts in healthcare education to insure no student has to leave that part of his or herself at the door.
10th Annual Innovations in Health Science Education Conference Submission

Name(s) of presenter(s) and school affiliation(s)

- Oma Morey, PhD  University of Texas Medical Branch
- Era Buck, PhD  University of Texas Medical Branch
- Anne Rudnicki, EdD  University of Texas Medical Branch
- Gregory K. Asimakis, PhD  University of Texas Medical Branch

Contact email address:  ommorey@utmb.edu

Title of Submission:

Creating a Case Authoring Toolbox to Enhance Problem-Based (PBL) Curriculum

Type of Submission (poster or demonstration)  Poster

Body of abstract (300-word maximum)

Educational Objectives for the Project

1. Faculty will create cases for PBL which include:
   a. rich contextual story elements,
   b. clear objectives
   c. clinical reasoning challenges tailored to the educational level of the students

2. PBL facilitators will guide student discussions using probing questions and prompts to encourage exploration

3. Students will engage the content through a consistent process of discussion and tasks

Project Description

A task force of course directors and medical educators was mobilized. A needs assessment was conducted with focus groups of students, PBL facilitators, and course directors. Needs identified included more 1) effective facilitator questioning, 2) supporting material in facilitator, 3) guidance on depth and breadth of discussions 4) guidance on developing learning issues, 5) complexity and richness of cases, and 6) reinforcement of clinical reasoning. The team concluded case authors needed detailed instructional materials for authoring effective PBL cases and facilitator guides and developed resources to scaffold the process. The resulting toolbox included tools for developing case objectives, a storyboard, clinical reasoning, PowerPoint slides of student materials, and a comprehensive facilitator’s guide. The tools were used to pilot revision of two cases in second-year courses.

Outcomes
Feedback from students and facilitators was generally positive. The school of medicine curriculum committee endorsed the toolbox, and it was made available online. Although initial assessment indicates faculty and students appreciate the benefits of revised cases, case authors consistently underestimate the time and effort required to revise cases and become overwhelmed by the complexity of major revisions.

**Lessons Learned/Next Steps**

To address these issues, the team will:

- target specific cases to be revised with sufficient lead time to accomplish the task
- write an exemplar case to serve as a reference using each tool in the toolbox
- expand faculty development for authoring cases using the tools.
### Template for Submissions

<table>
<thead>
<tr>
<th>1a.</th>
<th>Name(s) of presenter(s):</th>
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<tbody>
<tr>
<td></td>
<td>Robert E. Novak Ph.D., CCC-A; Adelita Cantu Ph.D., RN; Julie C. Novak DNSc, RN, CPNP, FAANP, FAAN (UTHSCSA)</td>
</tr>
<tr>
<td></td>
<td>Amanda Zappier Isley, Au.D., CCC-A (UT-Austin)</td>
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<td></td>
<td>Craig Champlin Ph.D., CCC-A</td>
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<th>1b.</th>
<th>School affiliation(s):</th>
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<tr>
<td></td>
<td>University of Texas Health Science Center San Antonio Department of Otolaryngology-Head &amp; Neck Surgery Center of Excellence in Communication Sciences &amp; Disorders &amp; Audiol. I. Murphy VA Geriatric Research Education and Clinical Center and Audiology Service</td>
</tr>
<tr>
<td></td>
<td>University of Texas Health Science Center School of Nursing and Nursing Clinical Enterprise</td>
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<tr>
<td></td>
<td>University of Texas-Austin Department of Communication Sciences and Disorders</td>
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<td><a href="mailto:novakr@uthscsa.edu">novakr@uthscsa.edu</a></td>
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<th>3.</th>
<th>Title of Submission:</th>
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<td></td>
<td>&quot;Can You Hear Me Now:&quot; An Interprofessional Education (IPE)/Interprofessional Practice (IPP) Model to Expand Hearing Health Care and Hearing Aid Resources to a Vulnerable Population Using Teleaudiology</td>
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<th>Body of abstract (300 word maximum):</th>
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<td>Over 35 million people in the US have significant hearing loss; with roughly 20% receiving audiology services and hearing aids. Numbers of individuals with hearing loss are increasing largely related to compounded noise exposure and longer life expectancy. We cannot prepare adequate numbers of audiologists to meet the need for hearing health care services in the current delivery model. Digital signal processing hearing aids could potentially provide significant benefit to the majority with hearing loss. Barriers to patient access include: high cost of hearing aids in current delivery system and absence of geographically convenient audiology services. Teleaudiology delivery of hearing aids expands the &quot;reach&quot; of existing audiologists, using remote audiologist-computer control of digital hearing test equipment and hearing aids. This model has been successfully pilot tested in the VA Health Care System. Teleaudiology in the public health care system is not widely available due to lack of third party reimbursement; familiarity with needed digitally-based teleaudiology equipment; IT support to facilitate network connectivity between the audiologists and their remotely-located patients; and coordinated training of the audiologist and teleaudiology support personnel. This pilot project, funded by a CMS and Texas System STARS grants involves: 1) creation of the IPE teleaudiology TEAM; 2) creation and initial delivery of an innovative IPE Teleaudiology Certificate Course involving UT-Austin Doctor of Audiology students &amp; their faculty, UTHSCSA nursing students and their faculty member and an ENT faculty member; 3) delivery of teleaudiology services including digital signal processing hearing aids to patients, and 4) development of a new EPIC EMR teleaudiology &quot;department&quot; for patient scheduling, data entry, and data analytics required for current health care delivery. Current IPE student preparation and IPP patient teleaudiology service delivery outcomes will be discussed along with plans for future development based on current challenges and successes.</td>
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* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
**Template for Submissions**

1a. Name(s) of presenter(s):
Omonole Nwokolo MD

1b. School affiliation(s):
University of Texas - Houston Medical School. Department of Anesthesiology

2. Contact email address:
Omonole.O.Nwokolo@uth.tmc.edu

3. Title of Submission:
A New Board Exam, A Novel Preparation Approach.

4. Indicate type of submission (choose one):
   
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5. Body of abstract (300 word maximum):

   Educational Objective: The American Board of Anesthesiology recently changed the format for board certification from the previous model of taking the written portion as part 1 after graduation from residency then taking the oral boards. The new model includes taking the examination in 3 parts. The first part, called the Basic Exam, will be taken after the first year of Clinical Anesthesia training (2nd year of residency). This exam is scheduled to start at the end of this academic year. This has presented a new challenge in preparing the residents for this exam while starting their clinical anesthesia training. The anxiety has been echoed in the current residents as well as the students interning to find out how exactly they will be preparing for this exam.

   Project Description: In order to assist in preparation, a new course series was created. An anesthesiology textbook was selected, the chapters divided amongst the upper level residents in the program. These residents were assigned a faculty mentor to create a 1 hour power point lecture modeled after the outlined released by the ABA. There is also a 30 minutes question and answer session following the presentation to reinforce the lecture concepts. The faculty mentor is available through the entire lecture to guide the presentation. This was done with the goal to have gone through the entire textbook by the time of the exam as well as over 500 questions.

   Conclusion/Future Plans: The goal is to have a 100% pass rate in the July 2012 exam. The lecture series does the multiple purposes of
   1. Preparing the CA1s for the exam.
   2. Reviewing and reinforcing the materials for the upper levels presenting.
   3. Teaching the upper levels how to prepare and present educational lectures.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
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<tr>
<th>1a. Name(s) of presenter(s):</th>
<th>Omonoule NWokolo MD</th>
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<tr>
<td>1b. School affiliation(s):</td>
<td>University of Texas- Houston Medical School. Department of Anesthesiology</td>
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<tr>
<td>2. Contact email address:</td>
<td><a href="mailto:Omonoule.O.Nwokolo@uth.tmc.edu">Omonoule.O.Nwokolo@uth.tmc.edu</a></td>
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<tr>
<td>3. Title of Submission:</td>
<td>Oral Boards Review... Lyndon B. Johnson Edition</td>
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<td>4. Indicate type of submission (choose one):</td>
<td>Poster</td>
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| 5. Body of abstract (300 word maximum): | Education Objectives: A major challenge for training institutions is to simultaneously create an environment for clinical and didactic learning for their trainees. The clinical learning aspects are mostly achieved in partnership with hospitals. In this particular instance, for a varied clinical experience, our department rotates 4-5 residents monthly through Lyndon B. Johnson hospital, an off site facility for us. These residents lose the opportunity to participate in some of the scheduled didactics in the AM at the Medical school building, particularly, the Oral board review. The Oral board exam is the last and arguably the most challenging in the series of exams needed to become a board certified anesthesiologist- the ultimate goal of our trainees.

Project Description: After a discussion with all the board certified faculty at LBJ, a pilot was started similar to the one at the medical school for 6:30AM oral board review with faculty for the residents. This was started January 2012 with great response and feedback from the residents, particularly the senior residents. A faculty member is assigned a particular day, they arrive early and meet with the residents and go over a case in an oral board examination format and with a debriefing at the end. This has actually become more realistic to the real examination due to the much smaller group than the main hospital therefore each resident feeling that they are actually participating and benefiting from this didactic change.

Conclusion/ Future Plans: The plan is to continue to utilize this time for oral boards. A survey is in the works to be sent out to graduates after 2012 once they have taken their boards to find out how beneficial they viewed this oral boards review project at LBJ hospital with an anticipation of very positive results.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
In partnership with the University of Texas at San Antonio, the University of Texas Health Science Center San Antonio has developed the Facilitated Acceptance to Medical Education (FAME) program where selected premed students are taught streamlined courses designed to prepare them for medical school. Included in this curriculum is the Behavioral Health Gateway course.

In the fall of 2013, Drs. Schillerstrom, O’Donnell and Klugman piloted the Behavioral Health Gateway course which introduced students to the field of clinical psychiatry. Twenty premed students received instruction on mental illness, psychopathology and intervention. Students used a standard psychiatry resident-level textbook. Closely tied to instruction was a series of four visits interviewing in-patients at either a VA or publicly funded hospital. Initially, students interviewed the patients under the supervision of a psychiatry chief resident. As the students became more proficient, they interviewed pre-selected patients alone. The chief residents were available for a de-briefing of the interview. Students were introduced to the diagnostic formulation process where they practiced integrating patient specific information into a comprehensive treatment plan.

Students rated the patient encounters and time spent with the chief residents as extremely valuable. Desired areas of improvement were more instructor guidance on the organization of clinical material. Feedback from the chief residents identified the need for communication and professionalism guidelines. In the spring of 2013, the format remained the same except that the students now receive a professionalism grade after each patient encounter. Additionally, the first three patient encounters are un-graded so that students have an opportunity to demonstrate increased proficiency. Classroom instruction has focused on identification of relevant clinical information and its use in a clinical report. An extensive evaluation questionnaire will be given at course completion in December and the results will be available for this study.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
**Name(s) of presenter(s):**
Bridgett Piernik-Yoder, PhD, OTR

**School affiliation(s):**
UTHSC San Antonio

**Contact email address:**
piernikyoder@uthscsa.edu

**Title of Submission:**
Using Crowdsourcing in the Health Science Classroom: Process and Potential

**Indicate type of submission (choose one):**

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**Body of abstract (300 word maximum):**

Crowdsourcing is defined as the act of taking a task or job traditionally performed by a designated agent and shifting it to a group of people or a community (Howe, 2006). Applications of crowdsourcing are seen in many areas including the software industry, engineering, business, journalism. In order for this to be effective, there must be an call for information and a high degree of participation from the “crowd”. So how can the concepts of crowdsourcing be applied in the graduate-level health science classroom?

This poster session will present the process by which crowdsourcing is being used in an elective course of digital technologies in the health professions. As an alternative to a faculty-developed course, the content development of the course is shifted to the students (Clark, 2013). Although challenges exist in the process, benefits include providing an ongoing context to explore with students aspects of information literacy, self-directed learning, and personal learning networks.

The learning objectives for this session are:
1. Define crowdsourcing as it applied to the health science classroom
2. Demonstrate how crowdsourcing may be used in the classroom setting
3. Discuss challenges and benefits of the process

**References**


Mentorship in a BS-MD Program: The Road to FAME

Allison Pye, University of Texas Health Science Center San Antonio
Pye@livemail.uthscsa.edu

Educational Objectives for the Project
To assist and fully support a new, accelerated BS-MD program, a mentorship program was conceived and implemented to match incoming undergraduate freshmen at The University of Texas at San Antonio (UTSA) with rising second-year medical students at The University of Texas Health Science Center San Antonio Medical School (UTHSCSA). The purpose of this study is to investigate students’ satisfaction with the mentorship program in its inaugural year.

Description
The FAME (Facilitated Acceptance into Medical Education) is a joint BS-MD program consisting of three years of undergraduate study at UTSA followed by medical school at UTHSCSA with an expected graduation date of 2020. In order to meet the overarching goal of producing twenty successful medical students through this accelerated program, a mentorship program was designed to support the FAME students navigate a rigorous and expedited course load while also helping students face certain academic, institutional and societal pressures. Data obtained through questionnaires and interviews facilitated pairing each FAME student with a second year medical student based on similar academic interests, hobbies, personality traits, and personal communication styles. FAME students met their mentors during their first semester of study at UTSA, and relationships will continue according to the preferences of each pair. In addition, several large group events will combine all FAME students and their medical student mentors at least once per semester throughout undergraduate study at UTSA.

Outcomes
An anonymous online survey will be distributed to both FAME students and their medical student mentors via the UTHSCSA surveymonkey portal to evaluate strengths and weaknesses of the mentorship program. Results will be analyzed to determine areas for improvement and areas of continuation.

Conclusions/Future Plans
Based on the results, the program will be modified to incorporate additional features to ensure continued satisfaction and development of FAME students.
PALLIATIVE CARE IN THE NICU: ASSESSING KNOWLEDGE AND EDUCATIONAL NEEDS OF PROVIDERS

Amy R. Quinn, Jean Petershack. University of Texas Health Science Center at San Antonio, San Antonio, TX.

Contact: Quinna@uthscsa.edu

Type of submission: poster

Introduction: The NICU is a unique environment where palliative care is appropriate for most patients. However, many professionals and trainees feel ill prepared to meet the needs of our patients. Assessing palliative care educational need is essential to develop a structured interprofessional educational intervention.

Objective: The objective of this study is to assess the palliative care educational needs of neonatal health care team members as well as their concomitant interest in learning.

Methods: IRB approval was obtained. A survey was designed that tested basic palliative care knowledge specific to the NICU, assessed educational interests, and described the participant general demographics, level of formal training, and years of work experience. A varied sample of participants was utilized in this study.

Results: One hundred and fourteen health care team members participated in the study. Participants were more likely to be female (88%) than male, had a mean of 5.3 years’ experience in the NICU (0-37 years), and were from a variety of professional groups (nurses, students, residents, faculty, respiratory therapists, etc). Respondents demonstrated opportunities for educational growth in the areas of knowledge of palliative care, pain management, ethical approaches to difficult decisions, and communication. A large majority of the participants would like to learn more about palliative care. The top three educational needs identified by the participants were pain assessment/treatment, communication with families and delivering bad news.

Conclusions: There is a clear need for improved education in neonatal palliative care amongst varied members of the medical team. Most of the members do not feel adequately trained and would like more education. As an interprofessional group, our first step is to develop an online interactive module addressing the assessment and treatment of neonatal pain that is appropriate to a diverse group of learners.
Elizabeth Rebello MD¹, Joseph R. Ruiz MD¹, Peter H. Norman MD¹, Glenda Redworth MS², Thomas Rahlfs MD¹

1 Department of Anesthesiology and Perioperative Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX
2 Department of Institutional Research, The University of Texas MD Anderson Cancer Center, Houston, TX

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Developing Mentee-Driven Ongoing Faculty Mentoring Relationships through Speed Mentoring

Poster/ poster discussion

Introduction: Mentoring in medicine fosters the growth of academic departments by improving research productivity and faculty career satisfaction.¹ Frequently mentoring pairs are assigned by administration with little input from anesthesia faculty, and there are no published studies that have examined the impact of anesthesiology faculty input in sustaining ongoing mentoring relationships. The purpose of this study was to implement a voluntary mentee-driven program whereby we measured the participants’ expectations before and after our Speed Mentoring Event.

Methods: An introductory presentation titled “Mentoring: An Asset to your Path to Promotion” was given by members of the Department of Anesthesiology Faculty mentoring committee. At the following faculty meeting, a Speed Mentoring Event was held in which 48 faculty members paired off for four 10 minute on-the-spot mentoring dyads. Mentor and mentee roles were initiated by faculty. The majority of instructors and assistant professors participated as mentees while the associate and full professors chose mentor roles. Participants were asked to complete a 7 question Likert-type scale survey one week prior to the Speed Mentoring Event (Phase I) and a 10 question survey after the Speed Mentoring Event (Phase II). Survey responses were summarized using descriptive statistics and a change from Phase I to Phase II was measured using Wilcoxon Signed Ranks Test focusing on 3 key questions: initiating an ongoing mentoring relationship, expanding one’s professional network, and assisting in pursuing scholarly work.

Results:

Participants’ response rate in Pre Speed Mentoring survey (Phase I) was 100% (48/48) and 58% (28/48) in Post Speed Mentoring Event (Phase II).
There was no statistically significant difference in the aforementioned 3 questions. Of the Phase II respondents, 71% will likely initiate an on-going mentoring relationship with a faculty member from the interaction at the speed mentoring session (Figure 1) and 79% percent would recommend a future Speed Mentoring Event.

![Figure 1]

**Discussion:** Most respondents had a favorable impression of the Speed Mentoring Event as an effort to cultivate an ongoing mentoring relationship. The enthusiasm was substantial as new collaborations were created. Future endeavors will consist of monitoring the progress of these ongoing mentoring relationships for tangible results.

**References:**

SUBMISSION:
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Valerie Andrews, MSN, RN, CNE, CHSE
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vcandrew@utmb.edu

Title of Submission: A Simulation Exercise to Provide Collaborative Education with the Overall Aim
Being Improved Patient Outcomes

Type of Submission – Poster

*Health Professions Education: A Bridge to Quality* suggested that a critical element required for
enhancing the quality of health care was to reform health care education. Important in that reform was
that all health professionals be involved and that each profession’s contribution be recognized. The
Institute of Medicine concluded that, among other items, poor communication and unhealthy work
environments contribute to medical errors, ineffective delivery of care, and stress among health
professionals. In 2002, the Committee on the Health Professions Education Summit proposed five core
competencies that all clinicians should possess and demonstrate in order to meet the health care needs
of the future: provide patient-centered care, work in interdisciplinary teams, employ evidence-based
practice, apply quality improvement, and utilize informatics. These observations encouraged us to
collaborate in the development of a simulation exercise that would involve teams of nursing, physician
assistant, and respiratory care students in their preclinical education with the aim of introducing these
competencies. We provided the exercise for 160 students over two days. Teams of 6-8 students were
provided with two clinical scenarios: 1) a post-operative patient who develops a cardiac arrhythmia,
decompresses and requires transfer to ICU and 2) a post-operative patient who is on mechanical
ventilation, has been difficult to wean, and is undergoing a spontaneous breathing trial. The students
completed the Readiness for Interprofessional Learning Scale Questionnaire one week before and immediately after the exercise. Preliminary data suggests students will embrace interprofessional learning experiences. Given that actual health care practice is collaborative, it is imperative that educators pursue every opportunity to expose students to this experience in the preclinical setting. We demonstrate that interprofessional education is a rewarding experience for educators and students and is easy to incorporate into our existing curricula.
**Names of presenters:** Laura Rudkin and Christine Arcari, UTMB Galveston

**Contact email address:** lrudkin@utmb.edu

**Title of submission:** Developing an Online Community of Practice to Bridge Primary Care and Public Health

**Type of submission:** poster or poster-discussion

**Abstract:**

**Objective:** This presentation will cover the educational principles, available technologies, and challenges of creating online Communities of Practice. Communities of Practice, popularized by the work of Etienne Wenger-Trayner in several seminal books, are “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.”

**Project:** Through a HRSA Primary Care Training Enhancement Grant, UTMB has created the Primary Care Plus Scholars program for MD and PA students committed to careers in primary care with an additional focus on public health. The first cohort was recruited in spring 2013 and includes 14 MD students and 13 PA students. The Scholars are spread throughout the state as they complete clinical rotations and thus face-to-face meetings are restricted. To facilitate interaction among the MD students, PA students, and primary care and public health faculty, the Program has created an online Community of Practice (PC+ CoP) which is hosted on the CDC’s phConnect website. Online discussion participants identify problems they observe in their areas of practice and the group members share resources and ideas for primary care and public health approaches to problem solving. Volunteers from the group then summarize the discussion and recommend specific action steps. The group holds two monthly face-to-face meetings that are broadcast in real time and available asynchronously on the program’s YouTube channel. The discussion continues in the online CoP throughout the month. The online activities were launched in August 2013 and discussions to date have focused on such topics as: developing shared parameters for the PCP+ CoP, identifying resources to address prescription drug abuse in rural settings, and training certified application counselors for insurance enrollment under the Affordable Care Act.
Objective: Every 4th year medical student applying for residency endures the critical path to residency known as the Interview Trail, but not every student receives prior training on interview skills. At UTHSCSA, a uniform practice interview experience had not been previously available. Veritas, the medical student mentoring and career-advising program, offered an opportunity for students to hear interview advice from residents and practice interviewing skills with faculty. The objectives of this event were to build confidence and reduce anxiety levels for interview season.

Description: All 4th year medical students were invited to participate in Mock Interview Night (MIN). Fifty students participated in the event, and 42 faculty were recruited to interview. The vast majority of students asked to be matched to faculty within their chosen specialty. Students sent personal statements and CVs to interviewers in advance. The event began with a panel of multi-specialty residents who shared advice for interviews, followed by a question/answer session. Students were encouraged to treat this as a real interview, wearing appropriate attire. Students participated in two 20-minute mock interviews, which concluded with ten minutes of verbal and written feedback. We developed an evaluation form for faculty to provide systematic feedback.

Outcomes: Verbal feedback was overwhelmingly positive. Formal evaluation of the event included pre- and post-surveys. 95% of students surveyed found the event helpful. Faculty stated they enjoyed the opportunity to participate in the event and found it to be a rewarding experience.

Conclusions: MIN was successfully implemented and well received with great utility for students and was rewarding for faculty. We will survey participants after interview season to determine impact of skills developed through MIN on the interview trail. To accommodate more students next year, we plan to host two separate mock interview nights.
| 1a. | Name(s) of presenter(s): Caley A. Satterfield, MEd |
| 1b. | School affiliation(s): University of Texas Medical Branch |
| 2. | Contact email address: casatter@utmb.edu |
| 3. | Title of Submission: Using Wikis as an Educational Tool in Pre-Departure Orientation for International Medical Rotations |
| 4. | Indicate type of submission (choose one): | |
| | Poster | Poster or Poster-Discussion | Demonstration |
| 5. | Body of abstract (300 word maximum): |
| | The increase in medical student participation in international health electives (IHEs) is well documented in the literature. There is a clear need to prepare trainees adequately for international medical work. While many programs focus on academic preparation, students, many of whom are inexperienced travelers, need additional logistical preparation. |
| | Feedback received from first year medical students traveling on IHEs in Summer 2012 indicated a gap in pre-departure preparation materials from the Center for Global Health Education (CGHE). The students indicated that although they had a good understanding of what would be required of them academically for their participation in the IHE, they were not prepared for the basic demands of international travel and did not have sufficient information about travel planning, logistics, and day-to-day living at their respective field sites. |
| | Web 2.0 technologies such as wikis have been implemented in informal learning settings to augment formal instruction. To address the gap in pre-departure preparation, country-specific wikis were developed to accompany formal preparation courses for international rotations for medical students. Wiki topics are not covered in formal courses but are extremely important to student preparation and success on international rotations. |
| | CGHE staff piloted three wikis for UTMB field sites in Kenya, Uganda, and Peru. Staff gathered information and pictures from their own field site visits and also solicited information from previous students. |
| | The results of the pre-travel survey strongly indicate that the wikis have made a definitive step towards closing the preparation gap identified in previous post-travel surveys of CGHE students. |
| | With the success of the pilot wikis, the CGHE will begin expansion to additional UTMB field sites in the Dominican Republic. Wikis for students traveling through non-UTMB coordinated field experiences (such as Child Family Health International) will also be made available, but will rely exclusively on student input for development. |

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
Name(s) of presenter(s): Caley A. Satterfield, MEd

School affiliation(s): University of Texas Medical Branch

Contact email address: casatter@utmb.edu

Title of Submission: Bridging Gaps: An Innovative Preparation Course for International Health Electives

Indicate type of submission (choose one):

- Poster
- Poster or Poster-Discussion
- Demonstration

Body of abstract (300 word maximum):

Medical student interest in global health drives the development of International Health Electives (IHE) at academic medical institutions. However, a standardized formal preparation curriculum is lacking. At the University of Texas Medical Branch (UTMB), innovative educational software was used to develop a preparation course for IHEs that addresses critical gaps not covered in traditional medical school curricula. Content was informed by core competencies developed by the Global Health Education Consortium (GHEC). The preparation modules were implemented as a course requirement for all 1st year medical students engaging in IHEs in 2012 and course evaluation survey data was analyzed as a part of programmatic monitoring and evaluation.

Using Articulate Design Studio 2009 software, we created a series of ten modules. Eight centered on core competencies in global health. Two site-specific modules (Kenya and Peru) were developed in collaboration with on-site partners to outline demographic, socio-economic, cultural, linguistic, and health system themes.

We utilized a Likert scale post-course survey instrument to assess the utility of the modules. The questions centered on the quality of content, clarity of presentation, and subjective understanding of the topics.

Forty-one students participated in IHEs and completed the required modules. Survey respondents who strongly agreed or agreed that the material covered in each module was useful to them during their rotation are as follows:

- Determinants of health: 55%
- Public health: 61%
- Human rights and social justice: 65%
- Global burden of disease: 72%
- International aid and NGOs: 53%
- Ethics and Medical volunteerism: 71%
- Travel safety: 88%
- Peru: 35%
- Kenya: 27%

Global health experiences need more robust preparation for traveling students. Electronic pre-departure preparation modules help fill this critical gap. Though the majority of students found the modules helpful, the site-specific modules were given the lowest rating. Student responses have guided the ongoing evolution of the modules.
1a. Name(s) of presenter(s):
SE Stutzman, PhD; D Jones, RN; LC Riise, MSN; AL Dirickson, MS; DM Olson, PhD; AA Magadan, MD; JP Yang, MD

1b. School affiliation(s):
UT Southwestern Medical Center

2. Contact email address:
sonja.stutzman@utsouthwestern.edu

3. Title of Submission:
QCI-NASCAR: The "Pit Stop" Model to Continuously Enhance Stroke Treatment Times

4. Indicate type of submission (choose one):
- Poster ✔
- Poster or Poster-Discussion
- Demonstration

5. Body of abstract (300 word maximum):
Background: Rapid recognition and treatment of stroke has been repeatedly associated with improved outcomes. Yet, a systematic, reproducible, and broadly accepted approach to emergency management of stroke remains a national problem. Timely administration of tissue plasminogen activator (t-PA) has been shown to be effective in improving outcomes after acute ischemic stroke. This study encompasses quality improvement (QI) protocol and cultural changes involved in improving door-to-treatment times of t-PA in the Emergency Department (ED).

Objective: We employed a pit-stop approach wherein the Registered Nurse is the driver for a new QI initiative aimed at finding best-practice workflow for acute stroke codes.

Methods: Five domains identified in recent literature were used to guide a multidisciplinary pit-stop crew: communication and teamwork, process, organizational culture, performance monitoring and feedback, and overcoming barriers. This pit stop model features assigns specific tasks to the stroke code team. Time point data for multiple key points in the stroke code (e.g. CT completion, t-PA administration) was collected manually by nursing.

Results: The first QCI-NASCAR protocol was implemented on October 2013. Thus far, over twenty changes have been identified and vetted by the steering committee. Changes and continually incorporated to identify best-practice for quickest treatment times. Early results have improved the door-to-treatment times for acute stroke patients eligible for intravenous t-PA response times by removing gatekeepers and allowing for non-sequential processing in which team members are able to focus on their defined, staged roles.

Conclusion: The QCI-NASCAR protocol represents a unique approach to developing a consistent method of reducing treatment times for acute stroke codes. The next phase of the QCI-NASCAR study will focus on developing this tool as a clinical education model for other hospitals, especially those located in rural or underserved areas where stroke specialists may be available only via telemedicine.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
1a. Name(s) of presenter(s):
Sarah Toombs Smith, PhD, ELS; Norma A. Perez, MD, DrPH

1b. School affiliation(s):
University of Texas Medical Branch

2. Contact email address:
stoombs@utmb.edu; noaperez@utmb.edu

3. Title of Submission:
An Innovative, Asynchronous, Web-based Introduction to Research for Medical Students

4. Indicate type of submission (choose one):

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<th>Poster</th>
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5. Body of abstract (300 word maximum):

Of the 907 medical students at UTMB, 100+ are enrolled in one of eight tracks: Aerospace Medicine, Bilingual Health, Global Health, Geriatrics, Medical Humanities, Rural Health Care and Translational Research. Such students often must produce a scholarly product (or research project) but have no context from which to understand the task, particularly those undertaking community service or reflective projects. All need grounding in the conventions of research, to evaluate emerging discoveries throughout their medical career. No such instrument appeared to exist, at UTMB or elsewhere. We therefore developed a narrated lecture orienting medical students to the terms and standards of research, sufficient to allow them to meet with a subject matter expert (faculty advisor) to begin their project. The lecture, Introduction to Research for Medical Students, is an asynchronous, stand-alone unit which students can work through individually, by objective, in their spare time without faculty guidance. Objectives were to: 1) understand the rationale for requiring medical students to produce an scholarly product; 2) describe the basic types of scholarly products; 3) outline strategies for developing a project idea; and 4) suggest a plan of action from moving from idea to abstract. Lecture objectives were aligned with AAMC standards and modules were produced as narrated PowerPoint presentations with music added. Examples highlight aging-related resources and UTMB faculty/student accomplishments. Sixty references (URLs provided) enable independent inquiry. Short quizzes increase student participation and highlight major ideas. Modules were posted on a university web site and publicized to the university. The content is suitable as an outside assignment for any elective/selective with a research component. Future steps include using reactions from students and track directors to refine the presentation.

* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
10th Annual Innovations in Health Science Education Conference

Names of presenters:
Steven G. Venticinque, M.D.¹, Clinical Professor of Anesthesiology and Surgery
Stephen M. Cohn, M.D.², Professor of Surgery

School affiliation:
University of Texas Health Science Center, San Antonio, Texas
¹Department of Anesthesiology
²Department of Surgery

Contact email address: venticinque@uthscsa.edu

Title of Submission:
The TRISAT Fellowship Consortium Lecture Development Series: A Formal Process to Teach Fellows How Create and Deliver an Effective Presentation

Indicate type of submission: Poster or Poster-Discussion

Body of abstract:
Educational Objectives: Every physician is an educator. Effective information exchange is a physician core competency because doctors must be able to teach their peers, colleagues, other health professionals, as well as patients and their families. In an effort to improve the quality of communication skills we tasked our fellows to provide formal presentations. After recognizing that lecture delivery was not an instinctual behavior, we established a training process to help our fellows develop and deliver better presentations.

Program Description: During the 2012-2013 academic year we developed a lecture development series based upon feedback from our fellowship annual review. The program consists of three sessions where the trainees provide presentations to a small peer group and select faculty, in a non-threatening environment. Constructive feedback was provided regarding time management; slide quality and content, audience captivation, and effectiveness of presentation delivery. The first session allots five slides in five minutes to cover a specific topic. For the second, each fellow prepares seven slides as part of a lecture focusing upon one topic, each during a seven minute time period. In the last session, a Pro-Con format is utilized, allotting the fellows 10 minutes each to present opposing points of view.

Outcomes: We have noted a distinct improvement in the quality of the fellow’s formal lectures, as well as enhanced communication skills through each step of the lecture development series. The fellows have become more succinct and direct, their slides show greater clarity, and they exhibit greater confidence at the lectern.

Future Plans: Given the high yield of this simple program, we plan to maintain it as a didactic element of our fellowship consortium. Since it is a novel process for fellowship training, we would like to establish a means to obtain a more objective assessment of its effectiveness.
Names of presenters:
Steven G. Venticinque, M.D.¹, Professor of Clinical Anesthesiology and Surgery
John G. Myers, M.D. ¹, Professor of Surgery
Christopher E. White, M.D. ², Professor of Surgery
Aristides P. Koutrouvelis, M.D. ³, Professor of Anesthesiology
Stephen Hill, M.D. ⁴, Professor of Anesthesiology and Pain Management
Bryan A. Cotton, M.D.⁵, Associate Professor of Surgery
Antonio Hernandez, M.D.⁶, Associate Professor of Clinical Anesthesiology
Ronald M. Stewart, M.D. ¹, Professor and Chair, Surgery

School affiliation:
¹University of Texas Health Science Center, San Antonio, TX
²San Antonio Military Medical Center, Fort Sam Houston, TX
³University of Texas Medical Branch, Galveston, TX
⁴University of Texas Southwestern Medical Center, Dallas, TX
⁵University of Texas Medical School at Houston, Houston TX
⁶Vanderbilt University Medical Center, Nashville, TN

Contact email address: venticinque@uthscsa.edu

Title of Submission:

Indicate type of submission: Poster or Poster-Discussion

Body of abstract:
Educational Objectives: Maintaining a high quality conference series for critical care fellowship training programs can be difficult due to challenges with fellow access, faculty availability, and the need to maintain an effective product. We are describing our experience with our de-novo, web-based conference series that serves as a foundational didactic element for our fellowship-training consortium, and by an increasing number of programs within the state of Texas.

Program Description: In 2004, the TRISAT fellowship training consortium in San Antonio Texas began providing fellows, faculty, and other ICU team learners with weekly didactic conferences at our three main teaching sites utilizing a legacy video teleconference (VTC) platform. The VTC platform required dedicated hardware and software, significantly limiting the viewing and broadcast locations. Recently, we have converted to a web-based, software-only product called GoToWebinar®. This new technology allows conference viewing on any web-enabled device, and permits broadcast from any computer.

Outcomes: The use of GoToWebinar® has provided ease of access and improved video quality for our conference series, allowing faculty and trainees to view high-fidelity conferences from virtually any location. Further, other surgical and anesthesiology critical
care fellowship programs within the State have now been able to join our conference series as viewers and presenters including our military partners in San Antonio. In fact, six Texas ACGME approved surgical and anesthesia critical care fellowship-training programs now participate in the webinar series. This has resulted in an unprecedented degree of collaboration and has broadened our educational diversity. The webinar series also provides a new means of faculty development.

**Future Plans:** We are actively seeking other critical care programs to join our webinar series, hoping to expand within the time zone. Future plans also include session archiving with on-demand viewing, CME offerings, and an objective assessment of the webinar’s impact on fellow learning.
Title: Efficacy of using wire loupes versus microscope magnification to train orthopedic residents in microsurgery
Authors: Waetjen E, Somerson JS, Girling R, Cromack D, Toohey J, Srinivasan R
Contact: Waetjen@livemail.uthscsa.edu
Submission type: Poster

Abstract

Educational Objectives
Microsurgery has become an increasingly important skill for surgical residents. Traditional microsurgery teaching has been performed using an operating microscope, which can limit teaching opportunities due to cost and availability. Orthopedic surgeons are much more likely to use loupe magnification rather than microscope magnification, but microsurgical teaching with loupes has not been validated. This project seeks to compare microsurgical skill between orthopedic residents who undergo teaching with loupe versus operating microscope magnification. Our hypothesis is that microsurgical skill will not be significantly different between these two groups.

Project Description
Twenty orthopedic residents will be split into two groups at random; one group will undergo a single training session with the aid of microscopes, and the other will use only the surgical loupes. Training will be performed by a microvascular specialist. After one teaching session with an instructor and five learning sessions with guided practice, each group will be assessed for skill and compared. Participants will be video taped performing an anastomosis and graded by a microvascular specialist not involved in the training process.

Projected Outcomes
Outcomes will be qualitative and quantitative assessment of the video taped anastomosis using validated microsurgery evaluation scores. Assessment will be blinded to the participant being evaluated.

Future Plans
Power analysis indicates a group size of n=20 will be necessary for answering this clinical question. Project is planned for initial enrollment of 10 participants to be completed by the end of the academic year. An additional 10 will be enrolled in the following year if funding is approved.
INTRODUCTION: Respiratory Therapists (RTs) enter the workforce with varying educational experiences ranging from an associate’s degree (AS) to a bachelor’s of science degree (BS). These students have a diverse ICU work experience which is largely program dependent.

METHODS: During the fall semester of 2012 a 36-hour didactic Extra Corporeal Membrane Oxygenation (ECMO) course with wet labs following the Extracorporeal Life Support Organization (ELSO) guidelines was added to the curriculum and administered to 19 RT students. An already established curriculum that has been used locally to train RTs and registered nurses (with at least two years of ICU experience) as ECMO specialists was administered. Using the same post-course evaluation, the RT students’ results were compared to those obtained from 19 practitioners who had previously taken the course.

RESULTS: The students T-test showed that there was a statistically significant difference between the scores for both groups (p = 0.002). The mean score for the RTs was 86.11% (SD ± 4.13%) vs. 90.92% (SD ± 5.58%) for practitioners.

DISCUSSION-CONCLUSION: Our results indicate that the scores obtained by students from the BS program meet the minimal level of competence (>80%) required of clinicians who train as ECMO specialists. However, they were lower than those of practitioners with prior ICU experience. This difference supports the significance of ICU experience and its impact on test performance. ECMO is a very difficult subject for new clinicians to learn. We believe that by this format we can; prepare our students for early integration in the ICU, increase their marketability in a competitive profession, and increase the opportunity that they be placed on an accelerated pathway to join an ECMO team. Further analysis of performance on RT board exams will be necessary to determine if the ECMO course has had any additional impact on the student’s critical care skills.
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<th>1a.</th>
<th>Name(s) of presenter(s):</th>
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<tr>
<td></td>
<td>Tatjana Walker, RD, MPH, CDE, CPH</td>
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<td>Beatriz Tapia, MD, MPH</td>
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<th>School affiliation(s):</th>
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<tr>
<td></td>
<td>University of Texas School of Medicine at San Antonio, Department of Family and Community Medicine</td>
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<th>Contact email address:</th>
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<td></td>
<td><a href="mailto:walkert2@uthscsa.edu">walkert2@uthscsa.edu</a></td>
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<th>Title of Submission:</th>
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<td>Clinical applications of environmental health: Training medical students to apply environmental health concepts in clinical practice through a longitudinal, on-line, 4th year medical school elective</td>
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<th>Body of abstract (300 word maximum):</th>
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<td>Introduction: &quot;$\text{Medicine and the Environment}&quot; is a 4-credit medical school elective offered at the UT School of Medicine by the Department of Family and Community Medicine. Taught entirely on-line over a 5-month period, the course emphasizes understanding common and clinically relevant exposures in the US and globally and reviews associated opportunities for risk reduction.</td>
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<td>Description: Students complete a course evaluation and compose a &quot;reflection&quot; essay that describes how what they learned in the course will affect their future practice. Course content includes (1) determinants of individual susceptibility to exposures, (2) indoor air quality and performing an &quot;asthma environmental house call,&quot; (3) effects of exposures on neurodevelopment, (4) taking an exposure history, and (5) reflection. Students also follow current events in environmental health and read and discuss a selection of books which address the relationship between exposures and cancers and/or endocrine disruption.</td>
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<td>Outcomes: We will present qualitative and quantitative data from course evaluations and student essays.</td>
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<td>Conclusions: Students who complete a longitudinal online elective in environmental health state they feel more prepared to advise patients of simple, cost effective actions to minimize risks associated with common environmental health hazards. Specifically, students appreciate learning to perform the Agency for Toxic Substances and Disease Registry (ATSDR) exposure history for adults and children and performing an &quot;asthma environmental house call.&quot; Challenges include providing timely and individualized feedback in this writing-intensive course and avoiding repetitive responses to discussion questions.</td>
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* Educational objectives or Introduction, Description or Methods, Outcomes or Results, Conclusions
**SUBMISSION:**

Name(s) of presenter(s) and school affiliation(s)
Donna Warren-Morris, RDH, MEd, UT School of Dentistry at Houston
Other Authors not presenting include Deborah J. Jones, PhD, MSN, RN (UT School of Nursing); June M. Sadowsky, DDS, MPH (UT School of Dentistry); Bela Patel, MD, DABSM, FCCP (UT School of Medicine) All are from UTHouston.

Contact email address
Donna.p.warren@uth.tmc.edu

Title of Submission
Oral Health and Mechanically Ventilated Critically Ill Adults

Type of Submission (poster or demonstration)
Poster

Body of abstract (300-word maximum)

This poster describes an interprofessional teaching module aimed at health care providers who are involved in the primary care of mechanically ventilated critically ill adults. The module is web-based and includes a narrated Power Point presentation with embedded video clips. It allows providers to refer to it as many times as necessary to refresh and/or clarify understanding of key points. It can be projected as a stand-alone presentation before a group of viewers in teaching and/or calibration scenarios. The presentation is provided with and without audio; therefore it can be used in a variety of ways or modified to meet learner needs or teacher preference. The video simulates interprofessional preventative oral care using both a manikin and standardized patient.

Foundational to this project is *the Smiles for Life: The Relationship of Oral to Systemic Health* module which describes aspiration pneumonia and identifies that 83% of nosocomial pneumonia occur in mechanically ventilated patients. Mechanically ventilated adults are dependent on healthcare providers to provide all aspects of their oral care. Studies have shown that oropharyngeal colonization is linked to development of ventilator associated or aspiration pneumonia and those oral care interventions can reduce ventilator associated pneumonia. Preventive oral care in mechanically ventilated adults not only reduces pathogenic colonization, but improves comfort. Poor oral health care can lead to disruption of mucosal integrity and tissue damage.

For demonstrations and descriptive or innovative poster/poster-discussion

**Educational Objectives for the Project**

Participants will be able to
- Define components of oral health in mechanically ventilated adults.
- Recognize complications from poor oral health.
- Promote good oral health through the delivery of appropriate interprofessional oral hygiene.
- Describe the state of the science regarding oral care practices in mechanically ventilated adults.
- Assess and deliver evidence-based interprofessional oral care.
- Recognize triggers to consult other healthcare providers
**Project/Program Description**
The project was the result of an interprofessional collaborative effort to design a teaching module aimed at health care providers who are involved in the primary care of mechanically ventilated critically ill adults. The authors include a nurse, dentist, physician and dental hygienist who are faculty in their respective UTHealth program. The module was designed to be web-based and includes a narrated Power Point presentation with embedded video clips. It can be used for self-study allowing providers to refer to it as many times as necessary to refresh and/or clarify understanding of key points. It can also be projected as a stand-alone presentation before a group of viewers in teaching and/or calibration scenarios. The presentation is provided with and without audio; therefore it can be used in a variety of ways or modified to meet learner needs or teacher preference. The video simulates interprofessional preventative oral care using both a manikin and standardized patient. Ten self-assessment questions are also included.

**Outcomes (if available) or what was learned**

Additionally, it has been submitted to MedEdPORTAL for review and publication.

**Conclusions/Future plans**
Future plans include an *in vivo* study to determine twice a day toothbrushing and the effects on endotracheal tubes and health in 40 mechanically ventilated adults. IRB approval has been procured and the study will begin in January at Memorial Herman Hospital.
Title of Submission:
A phenomenographic exploration of trust in online learning teams in a RN-BSN program

Type of Submission (poster or demonstration): Poster or Poster-Discussion

Abstract (300-word maximum). For research design and outcomes poster/poster-discussion

Introduction:
Integral to team functioning is trust. Trust develops through interaction among team members. This interaction is difficult with online learning teams. The purpose of this study was to explore the experience of trust in individual students engaged in problem-based learning throughout an on-line RN-BSN program. The study incorporated a phenomenographic approach, a qualitative interpretative research method aimed at clarifying individual perceptions of a phenomenon. An important concept in phenomenography is the incorporation of variation theory describing these individual differences.

Methods:
The participants were chosen from the Fall 2012 cohort of RN-BSN students (n=40) at UTMB. The cohort was divided into teams of five. The teams remained together throughout the entire program. The study participants (n=10) were randomly chosen from the teams. Each student was followed through the entire program. The study consisted of two in-depth semi-structured interviews, one at the end of the first semester, one at the end of the program. Individual student e-journals, team peer evaluations and Blackboard interactions were reviewed for team communication styles and student participation.

Results
Each participant brought individual concepts of teamwork to the experience. In teams that remained together, participants experienced less variance. In teams that changed over time, variance became a detriment to the teamwork experience.

Conclusions/Discussion:
Initially, the participants expressed concerns about how teams could function in an online environment. Overtime the participants conveyed a developing sense of trust with their team, expressing positive experiences that they incorporated in their workplace.